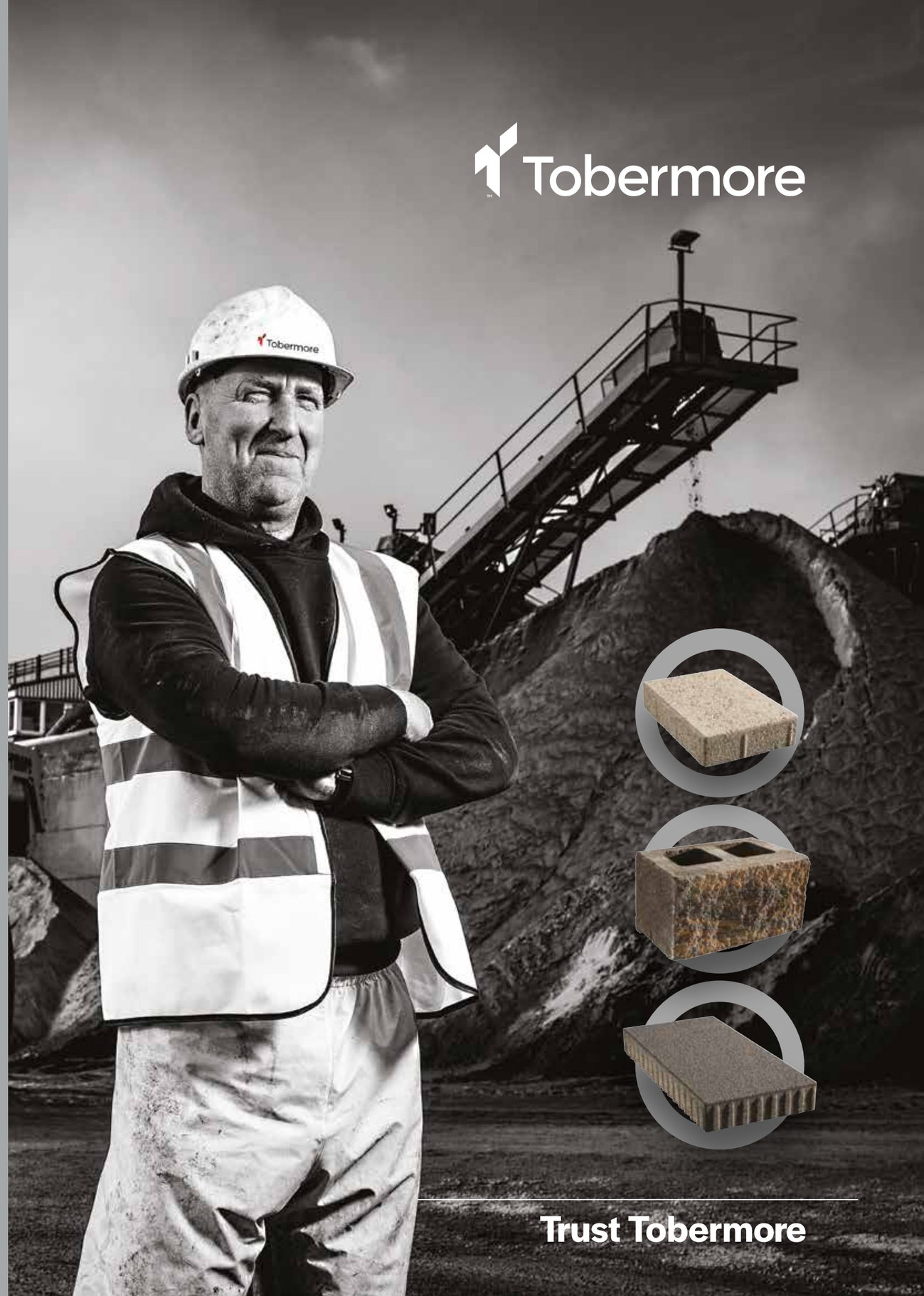
Tobermore

Paving & Walling

Specification Guide v.4


Tobermore
Tobermore
Trust Tobermore

Tobermore

Contents

Introduction

Paving for the digital age 6
75 years & counting 8
Responsible Manufacturing 10
PrimeTop 12
Ef-Stop 14
EasyClean 16
ServiceSure 18
Texture & Scale 20
Colour & Tone 22
Featured Projects 24

Block Paving

Braemar 40
Fusion 48
Sienna 54
Sienna Setts & Circles 58
Chieftain VS5 62
City Pave VS5 66
Manhattan 70
Tegula 74
Tegula Setts & Circles 78
Retro 82
Lincoln 86
Shannon 88
Pedesta 92
Pembury 96
Toberloc 100
Mammut 102
Marker Block 104
Turfstone 106
Technical Information 108
Laying Patterns 110

Hydropave Permeable Paving

Hydropave Fusion 114
Hydropave Sienna 118
Hydropave Tegula 122
Hydropave Shannon 126
Hydropave Pedesta 130
Hydropave 240 134
Hydropave Mayfair Flags 136
Hydropave Textured Flags 140
Hydropave Standard Flags 142
Technical Information 144
Laying Patterns 149

Paving Flags

Braemar Flags 152
Mayfair Flags 156
Historic Flags & Circles 160
Anglesey Flags 164
Beaufort Flags 166
Textured Flags 168
Kensington Flags 172
Riven Flags 174
Standard Flags 178
Tactile Flags 182
Technical Information 186
Laying Patterns 187

Steps

Braemar Step Flags 190
Mayfair Step Flags with delineation strip 192
Mayfair Step Flags 196
Textured Step Flags 200
Step Risers 202
Granite Step Unit 206
Technical Information 210

Kerbs & Edging

Country Kerb 214
Radii Kerb 218
Quadrant Kerb 222
Kerbstone 224
Kerbsett 228
Kerb Large (KL) 230
Kerb Small (KS) 234
Tegula Kerb Large (TKL) 236
Kerb Specials 238

Walling & Masonry

Lansdowne 242
Kingston 246
Engineering Quality Concrete Brick 250
Country Stone 252
Specials 256
Technical Information 260

Secura Retaining Walls

Secura Grand 266
Secura Lite 270
Technical Information 274

AirClean Paving

AirClean Braemar 278
AirClean Fusion 280
AirClean City Pave VS5 284
AirClean Mayfair Flags 286
Technical Information 288

Instructions & Warnings 289

Paving & Walling for the digital age

We have developed an extensive digital resource, capable of empowering designers to source, select and specify the optimum paving and walling solutions for every project.

NBS PLUS/CREATE

Our NBS product specifications provide distinctive and informative information, essential for construction professionals in the industry's digital revolution.

DOWNLOADS

If you prefer a paperless office, all of our data, brochures and case studies etc. can be easily downloaded from the Tobermore website.

BIM DOWNLOAD

Tobermore's BIM objects are accessed via our website. Our products' physical characteristics can be transferred directly into your Building Information Model.

DESIGN INSPIRATION

Be inspired by searching our extensive online photo gallery or refer to our case studies for recent applications. Choose to filter by product category or project type.

SAMPLES & QUOTES

Our digital forms are the fastest way to request product samples or request a quote thanks to our highly responsive specification service.

COLLABORATIVE WORKING

We facilitate easy design collaboration with colleagues via our online Product Folder feature and convenient links for sharing via email or your preferred social media channel.

Find out more at
tobermore.co.uk

TOBERMORE SAND & GRAVEL Co.

75 Years & counting

Behind every remarkable company lies a story of vision and exceptional determination.

At Tobermore our inspirational story began over 75 years ago when Sam Henderson returned from the war as a young man. His mother had saved £500 during his time away and this was quickly invested in a fledgling family business. Sam went on to lead the business into pioneering production of concrete products before subsequent developments laid the foundations for the Tobermore brand.

Today, Tobermore remains family owned and managed, with the same vision, determination and values which are driving the business forward as one of the UK and Ireland's leading manufacturers of concrete paving and walling products. We are now trusted suppliers to some of the country's most prestigious schemes in partnership with leading contractors and housebuilders.

At Tobermore "average" is never acceptable. Our recent £4m investment in the world's most advanced manufacturing equipment is indicative of our determination to always serve our chosen markets with excellent quality and service.

In 2019 we launched a fresh new face for Tobermore reflecting the energy and spirit which drives our people to bring market-beating solutions to designers and contractors across the country. Innovation fuels our growth as we find new ways to further enhance product performance, making us enthusiastic about Tobermore's future in a market which recognises the true value of our 'right first time', responsive service.

Tobermore

"Our continual investment in people and new technology is securing Tobermore's excellence for both quality and service.

David Henderson
Managing Director

Responsible Manufacturing

We care about our impact on the global environment, so we invest in a robust programme of continuous environmental improvement.

Energy
We are reducing our carbon footprint by hundreds of tonnes each year by investing in the production of our own clean energy output from solar panels and a 250kw wind turbine.

Waste
We have reduced our waste to landfill to zero through a process of continual improvement in production efficiency and the 100% recycling of manufacturing residue.

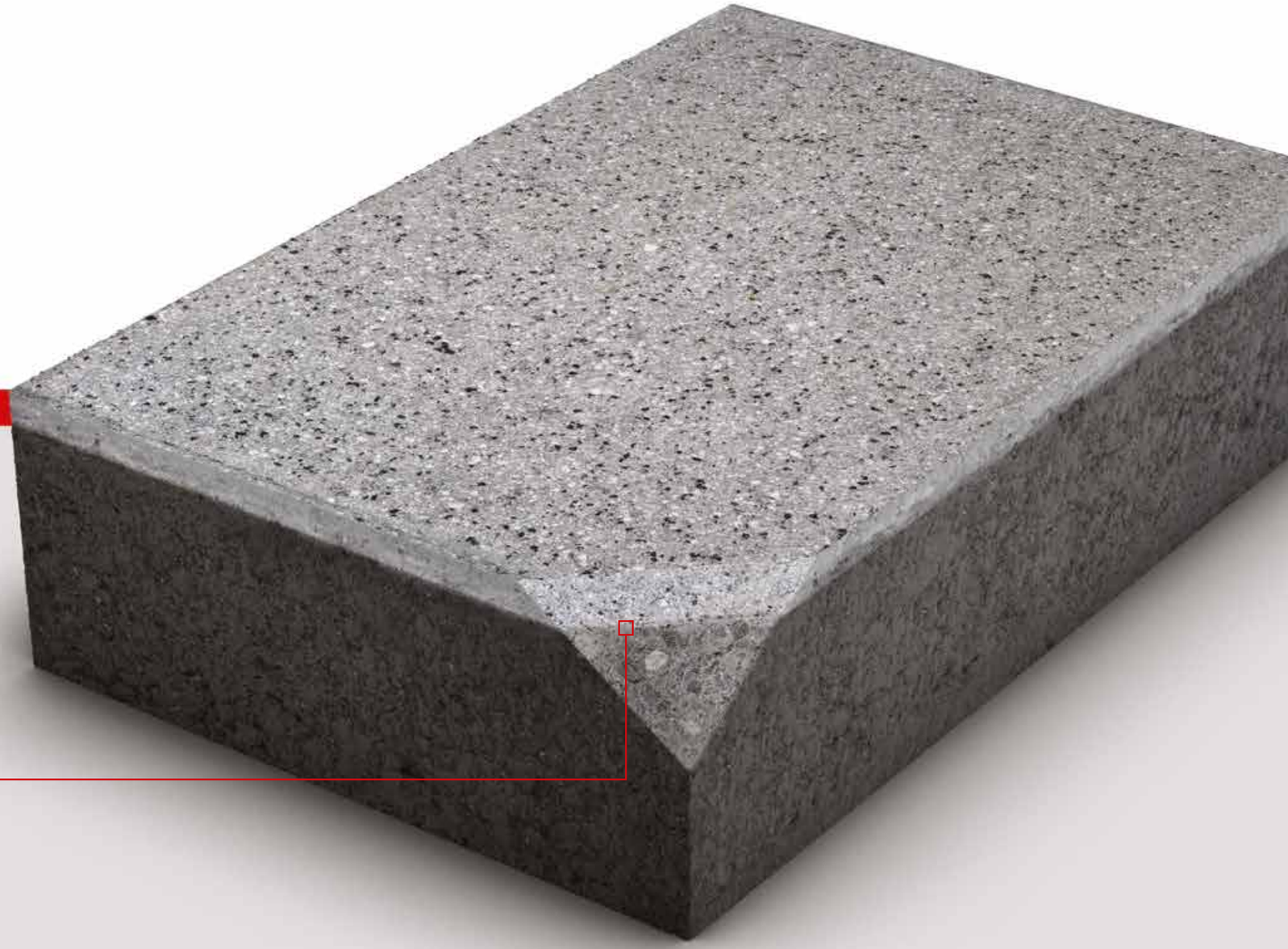
Transport
We maximise transport efficiency, through our "on time and in full" policy. All loads are despatched from a single site and vehicle use is optimised through back loading.

Water
We recycle 100% of the water used in our manufacturing process and manage our use of this precious resource by investing in systems to harvest rainwater.

Packaging
We use 100% recyclable packaging and provide the maximum protection for our products with minimum environmental impact.

PrimeTop®

PrimeTop is the high performance feature which differentiates Tobermore from standard concrete paving. Tobermore's PrimeTop is manufactured with a premium, hard-wearing surface layer which adds significant performance benefits.



PrimeTop Layer

Hard-wearing Surface

The PrimeTop surface layer has a dense composition of finer aggregates, hard sand and a higher percentage of cement. This hardened surface layer has enhanced strength and increased resistance to wear and tear, for both pedestrian and vehicular traffic.

We produce two different material mixes; the PrimeTop layer and a robust base layer formulated for optimum structural performance. Both layers are formed simultaneously, producing an inseparable bond that stands the test of time.

Aesthetic appeal & enhanced weathering

The PrimeTop surface layer contains a high concentration of pigment creating vibrant colour and exceptional UV performance, leading to enhanced weathering properties.

Tobemore PrimeTop is renowned for its superior long-term retention of colour and visual appeal.

PrimeTop®
Look for products with the PrimeTop logo

Excellent wear resistance | Refined over 25 years | Superior frost resistance | Long lasting colour

✓More **Cement**

✓More **Pigment**

✓Finer **Aggregates**

Ef-Stop®

Combatting efflorescence
Every aspect of our product's performance is researched and optimised to provide an excellent long-lasting appearance. In respect to the challenge of efflorescence, we have invested in manufacturing technology which enables us to produce virtually efflorescence free paving.

Efflorescence is perhaps the single biggest problem encountered with decorative concrete paving products. The cause of efflorescence is simply a chemical reaction between the cement in the concrete and rainwater causing the formation of calcium carbonate. This white, crystalline substance stains the surface and spoils the appearance of the paving.

In the Tobermore manufacturing process, we cure our products in a warm vapour atmosphere for 12 hours, which ensures that efflorescence is dramatically reduced. Moreover, the vapour curing also enhances the colour, improves the strength and cures the products much faster, allowing products to be used almost immediately.

Ef-Stop®
Look for products with the Ef-Stop logo

Competitor's paving

Vapour Cured
The Ef-Stop protection includes an intense vapour curing process. Vapour penetrates to the core of the paver.

EasyClean

EasyClean is a new concept for the modern home that takes the work out of caring for paving. EasyClean flags are treated with stain resistant technology during the manufacturing process allowing for built in protection. The stain resistant technology prevents spills from penetrating the surface of the flag, allowing for them to be wiped away with ease.

Easily cared for

EasyClean paving is integrated with stain resistant technology, commonly used across Europe and the USA. During the manufacturing of EasyClean Tobermore integrate long lasting stain resistance into the surface of the paving; EasyClean paving resists staining from infiltrating the paving surface so spills can be simply wiped away.

EasyClean is available in two distinctive paving ranges:

- **Mayfair Flags**
  Natural granite aggregates
- **Beaufort Flags**
  Natural contoured surface

Water resistant core & surface

The secret of Tobermore's stain resistant technology lies not only in the surface protection, but in the core of each slab which is manufactured to be inherently water resistant.

Dirt and debris wash away

Reliable Partner

ServiceSure

ServiceSure is Tobermore's unique package of customer service benefits developed to ensure an efficient, consistent and streamlined experience. This unbeatable, seamless service follows your project from initial enquiry to delivery and beyond, keeping you fully informed at every stage.

Unrivalled availability

With more stock on the ground and a faster turnaround on batch controlled orders we offer market leading availability on a full range of paving and walling products. Because we manufacture everything on one site we can combine mixed product loads for customer friendly logistics.

Delivery excellence

You can trust Tobermore to fulfil your order on time and in full as agreed. This industry leading service is proven week in week out and in 2018 we achieved outstanding delivery performance with 99.47% of orders on time and in full.

99.4%
ON TIME IN FULL

Easy Spec

Our specification team is on hand across the UK and Ireland to support you with technical advice, design support and samples. Tobermore's comprehensive website provides additional access to useful information. This is backed up by a package of the industry's leading specification tools including NBS Plus/Create and BIM level 2.

NBS Plus & Create

BIM Level 2

Design Services

Fast Quote

We always turn around quotes within one working day.

Intelligent Ordering

Every order placed with Tobermore is sense checked on receipt by one of our trusted advisors who will liaise with you directly to ensure quantity, format and delivery details are right first time. All orders will receive an Order Confirmation with clear product and pricing information.

Texture & Scale

Create Character with Texture and Scale.
Creating character in hard landscaping schemes relies on the balance between paving texture and scale. At Tobermore, we bring you more choice, to help achieve your vision for every project.

Texture

Smooth surface products are ideal for areas where pedestrian wheeled traffic such as trolleys or buggies are frequently expected. Our diamond tipped grinding process is used to produce smooth, ground surfaces, in our premium Braemar and Anglesey paving ranges.

Rougher surface textures are associated with enhanced slip resistance and are suitable for use in most applications.

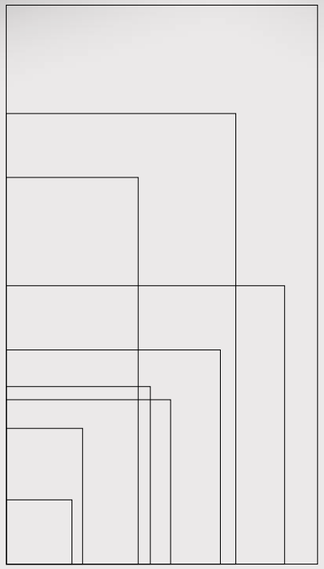
Tobermore's granite aggregate ranges offer a natural surface texture, blending well into both the built and natural environment, providing an attractive, hard-wearing solution.

Surface solutions for all applications

Scale

A comprehensive selection of sizes is available across our block and flag paving ranges. Various sizes from 100x100 to 1200 x 400, facilitate the ideal paving design for everything from intimate courtyards and pathways to expansive public spaces.

Create engaging visual appeal through the selection of different paving formats and laying patterns with options including modern plank style, mixed sizes, square, rectangular or even circular features.



Comprehensive size range

Colour & Tone

Create Impact with Colour & Tone.
Colour is a major factor in paving design with the option to complement or contrast with the surrounding buildings and planting. At Tobermore we create colour through a variety of manufacturing techniques, each perfected to provide longer lasting colour performance.

Colour

Spanning the colour spectrum from cool greys to warm buffs the range includes colour highlights ideal for adding interest and contrast in mixed colour designs.

Tone

We produce a range of tonal effects through a variety of material ingredients. We use single pigments for strong vibrant solid colours or mixed pigments to create blended effects across a paved area. The natural aggregates in our granite ranges create a unique effect, often with a natural sparkle and tonal interest.

Education

Tobermore excels in the provision of paving across a full range of applications within the Education sector, with solutions designed to retain their appearance over time, despite high traffic demands.

Our extensive range of smooth, textured and granite style paving meet the differing requirements of learning, sports and accommodation spaces across 1st, 2nd and 3rd level education projects.

Peel Park Quarter
University of Salford

Products:		Landscape Architect	Main Contractor	Groundworker
Hydropave Fusion Silver & Graphite	Country Kerb Graphite Aggregate	Gillespies	Graham Construction	Gibson Paving

Public Realm

Designing public spaces and townscapes to create a real sense of place requires the careful selection of hard landscaping materials. Our extensive range of textures, colours and sizes has been created to maximise the creative options without limiting the performance required for these high traffic locations. It is here that Tobermore's experience and advanced manufacturing techniques really count.

Camberwell Regeneration

Southwark, London

Products:	Client	Architect	Groundworker
City Pave VS5 Charcoal, Mid Grey & Silver	Southwark Council	John McAslan & Partners	Blakedown Landscapes

Commercial/Retail

Tobermore paving and walling excels in commercial environments thanks to the innovative PrimeTop manufacturing process which creates harder wearing products. Every aspect of design flexibility can be facilitated through the variety of scale, texture, colours and natural materials available in the range. We assist design professionals through technical support including easily accessed data in NBS plus and BIM formats.

British Airways i360
Brighton

Products:	Client	Architect	Landscape Architect	Groundworker
Sienna Duo Silver	Brighton i360 Ltd	Marks Barfield Architects	The Terra Firma Consultancy	JT Mackley & Co. Ltd

Medical & Healthcare

Designers of hospitals and health facilities place a high value on using both hard and soft landscaping to create a sense of well-being for patients and staff. Tobermore's wide range of natural colours, textures and sizes facilitate the design of hard wearing yet attractive spaces within a busy environment. A full range of technical services are available to assist the designer to deliver their creative vision for the scheme.

Queen Elizabeth II Hospital
Hertfordshire

Products:
Sienna & Sienna Duo
Graphite & Silver

Architect
Penoyre & Prasad

Landscape Architect
Macfarlane & Associates

Main Contractor
Balfour Beatty

Sports & Leisure

Great paving adds to the experience enjoyed by those visiting and participating in sports and leisure venues. Tobermore facilitates the design of modern paving schemes through contemporary laying patterns and striking colour combinations. Our range of formats including plank, block and flag paving include options suitable for a diverse range of applications with varying needs for both pedestrian and vehicular traffic.

Sir Chris Hoy Velodrome
Glasgow

Products:
Sienna Duo
Graphite & Sandstone

Hydropave Sienna Duo
Graphite & Silver

Hydropave 240
Bracken & Charcoal

Architect
3DReid

Main Contractor
Sir Robert Alpine, Edinburgh

Sub Contractor
Land Engineering, Glasgow

Housing

Hard landscaping plays a significant part in creating the visual appeal essential for desirable homes. Our vibrant block paving creates real impact for roads, driveways and paths with a range of options to complement every style of development. The design of inviting outdoor spaces is made possible by Tobermore's vast range of paving formats, colour and texture, including the option for unique low maintenance paving.

Salterns Reach

Prinsted

Products:

Hydropave Tegula Duo
Heather

Hydropave Tegula 240
Natural

Developer
Junnell Homes

Landscape Designer
Beth Moore (Tobermore)

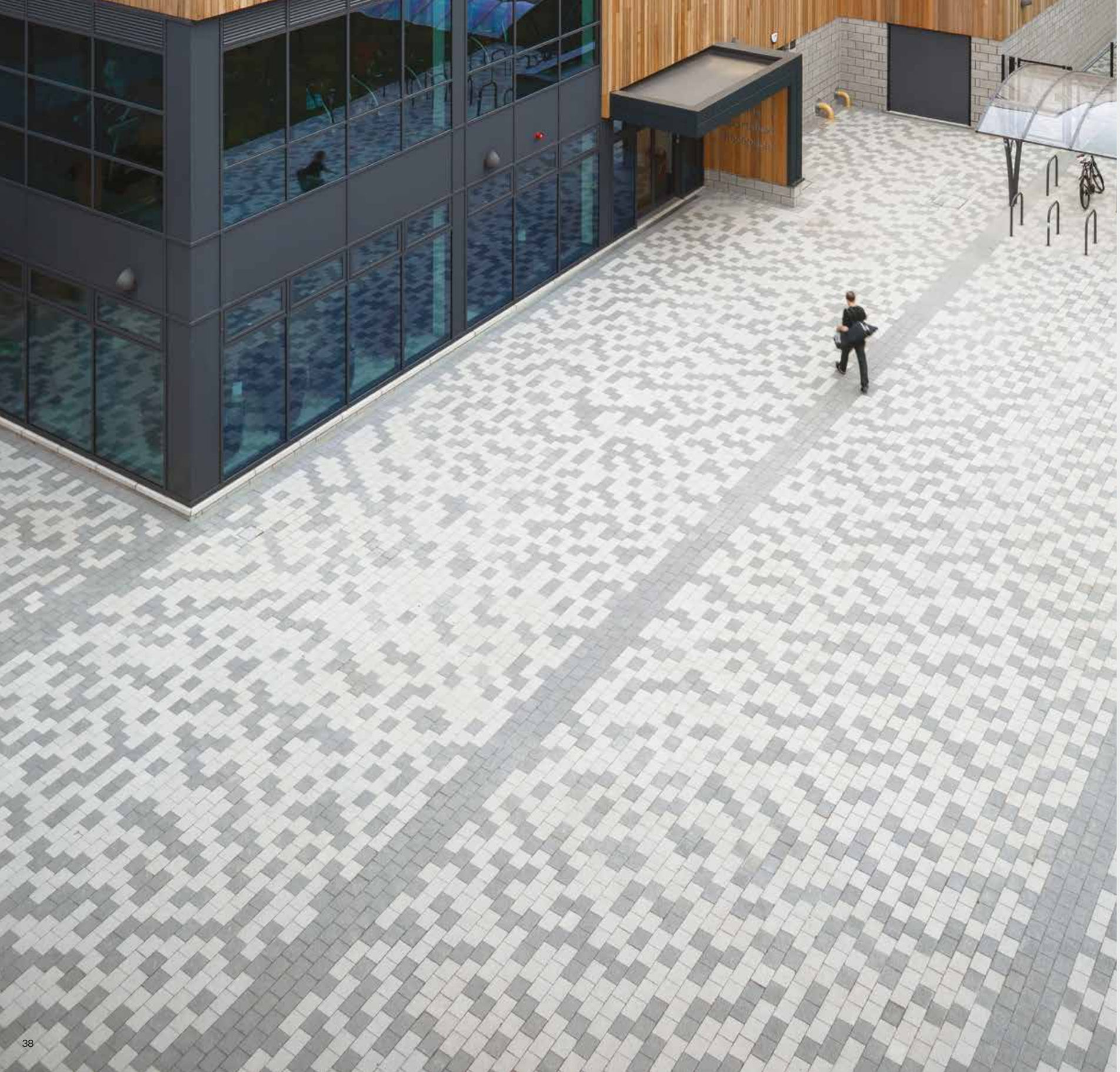
Retaining Walls

The use of Retaining Walls is a growing requirement as site space is increasingly optimised across varying levels. To meet these needs, Tobermore has developed a highly efficient range of pre-finished Retaining Wall products which assist specifiers in creating attractive schemes with a high degree of effectiveness on-site.

The Woodlands
Loughborough

Products:
Secura Grand
Bracken

Developer
Willmark Homes LTD



Product Range

Braemar	40
Fusion	48
Sienna	54
Sienna Setts & Circles	58
Chieftain VS5	62
City Pave VS5	66
Manhattan	70
Tegula	74
Tegula Setts & Circles	78
Retro	82
Lincoln	86
Shannon	88
Pedesta	92
Pembury	96
Toberloc	100
Mammut	102
Marker Block	104
Turfstone	106
Technical Information	108
Laying patterns	110

Block Paving

Braemar

Braemar is an exceptionally versatile paving range combining the aesthetics of natural granite with the practical benefits of our modern high-performance PrimeTop paving.

Available in a co-ordinated range of natural granite colours, Braemar can be specified in two distinct diamond ground finishes, facilitating the creative use of texture and tone in projects which demand a premium hard landscaping solution.

Braemar is fully supported by Tobermore's ServiceSure package ensuring its availability on time and in full, unlike the extended delivery schedules often experienced with natural stone.

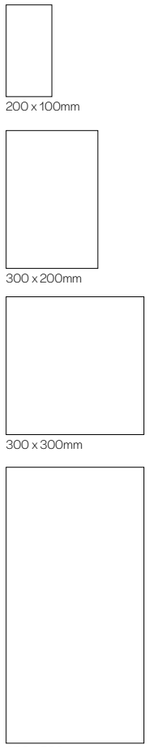
Braemar

A high performance paving range with the aesthetic appeal of natural granite.

Manufactured from carefully selected premium aggregates, Braemar is diamond ground to produce two distinct finishes in an extensive block paving size range in a choice of granite colours.

- Cost-effective alternative to natural stone
- Premium block paving
- Manufactured with natural granite aggregates
- Superb hard-wearing granite surface
- Vibrant long-lasting colours
- Creates a striking, contemporary look
- Readily available with much shorter lead times than natural stone

PrimeTop® Ef-Stop®



Sizes

80mm

Depths

Braemar Ground Textured

Braemar Ground

Surface solutions for all applications

Braemar's advanced PrimeTop construction and wide palette of natural granite aggregates provides a modern solution for use in projects requiring a superior paving solution. Each Braemar block or slab is individually finished through a diamond tipped grinding process to create the aesthetic appeal of natural stone. The range is available in two different finishes.

Ground

Braemar's Ground finish creates an attractive, smooth effect, similar to honed granite which highlights the colouring in the natural granite aggregates.

Ground Textured

Braemar's Ground Textured finish creates an effect similar to hammered granite, with distinctive granite highlights on the surface of the paving.

Tobermore

Braemar

Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Block			
Manufactured to	**BS EN 1338:2003**	300x200x80mm 200X100X80mm 300X300X80mm		
	BS EN 1339:2003	600X300X80mm		
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >390kgs/m³ cement			
Surface Finish	Ground/Ground Textured			
Granite Content in Surface Layer (Not less than %)	Innis Black Jura Grey Iona White Arran Stone	53.3% 51.3% 0% 83.3%	Cara Slate Alto Silver Islay Rose Persia Blue	27.3% 63.3% 54.6% 68.3%
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence			
Slip/Skid risk	Low			
Installed to (Externally)	**BS 7533-3:2005**	200X100X80mm 300X200X80mm 300X300X80mm		
	BS 7533-4:2006	600X300X80mm		
(Internally)	Details available on request			
Strength	**BS EN 1338:2003**	Typical tensile splitting strength of >3.6MPa		
	BS EN 1339:2003	Typical tensile splitting strength of >5MPa (Class 3)		
NSS	**Plus** Q24 110 **Create** 45-20 64/400	200X100X80mm 300X200X80mm 300X300X80mm		
	Plus Q24 110 **Create** 45-20 64/395	600X300X80mm		
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design and the most suitable product size for your application. Available from www.bsigroup.com			
Energy used	100% renewable energy			
Water used	100% from our rainwater harvesting system and groundwater bore hole			
Recycled content	**Not less than 10%**	200X100X80mm 300X200X80mm 300X300X80mm		
	Not less than 6%	600X300X80mm		
Carbon Footprint	34kgCo²e/m²			
Recyclable	100% of this product can be recycled			
Manufacturing & Delivery	From one location within the UK			
breeam **rating** www.**bre**.co.uk	**B**, according to the Green Guide to Specification, 4th Edition 2009. **A**, can be achieved when used in conjunction with a prepared recycled sub-base.			

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

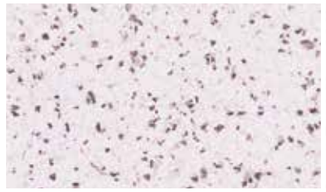
GT Ground Textured | **G** Ground
Finish

Steps | AirClean
Also available as

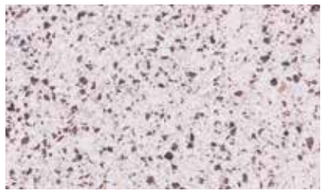
Pedestrian Use | Light Traffic | Commercial Traffic
Refer to relevant guidance in BS 7533

BIM Level 2

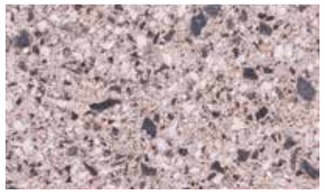
Iona White*



Alto Silver†

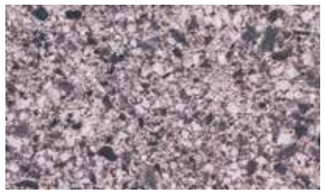


Jura Grey*†

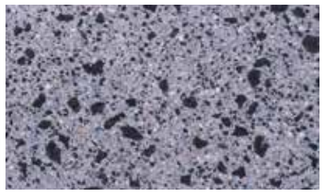


Innis Black†

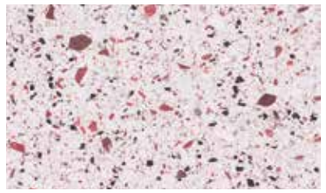
Cara Slate†



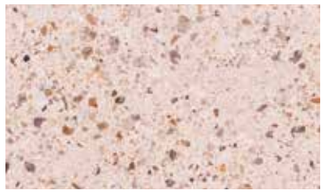
Persa Blue*†



Islay Rose*†



Arran Stone*†



Stock

product	size (mm)	edge	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Braemar Ground & Ground Textured 80mm BIM	200 x 100 x 80	Square edge	Alto Silver, Cara Slate, Innis Black	YES	9.6	1.6	50	480	1756	1746
			Arran Stone, Iona White, Islay Rose, Jura Grey, Persa Blue	SO						
	300 x 200 x 80	Square edge	Alto Silver, Cara Slate, Innis Black	YES	9.6	2.4	16.66	160	1756	1746
			Arran Stone, Iona White, Islay Rose, Jura Grey, Persa Blue	SO						
	300 x 300 x 80	Square edge	Alto Silver, Cara Slate, Innis Black	YES	7.2	1.8	11.11	80	1319	1309
			Arran Stone, Iona White, Islay Rose, Jura Grey, Persa Blue	SO						
	600 x 300 x 80	Square edge	Alto Silver, Cara Slate, Innis Black	YES	7.2	3.6	5.55	40	1319	1309
			Arran Stone, Iona White, Islay Rose, Jura Grey, Persa Blue	SO						

BIM - This product is available to download from our website in BIM Level 2 format.

IMPORTANT INFORMATION

A regular maintenance programme should always be established and active for all public spaces to reduce the risk of slip/skid. Tobermore's stunning ground and ground textured finishes are created using a modern diamond grinding process which achieves a premium finish. Ground textured provides a higher level of slip resistance.

Tobermore recommend that you separate product groups using contrasting bands of colour as each product is manufactured separately and may have slight variations in colour.

Light coloured blocks emphasise tyre marks and oil spills. It must be accepted that these products will need more maintenance if the overall appearance is to be maintained.

*** Ordering Information** - Minimum order of 250m² for Arran Stone, Iona White, Islay Rose, Jura Grey and Persa Blue
† Product Information - Manufactured with natural granite aggregates

Fusion

Modular granite aggregate paving.

Fusion's granite appearance creates a striking, contemporary look. An extensive range of colours allows for the creation of unique paving patterns and designs.

- Vibrant, granite appearance
- Manufactured with sparkling natural granite aggregates
- Superb hard-wearing granite surface
- Vibrant long-lasting colours
- Significantly reduced efflorescence
- Creates a striking, contemporary look

PrimeTop® Ef-Stop®

100 x 100mm

200 x 100mm

200 x 200mm

300 x 200mm

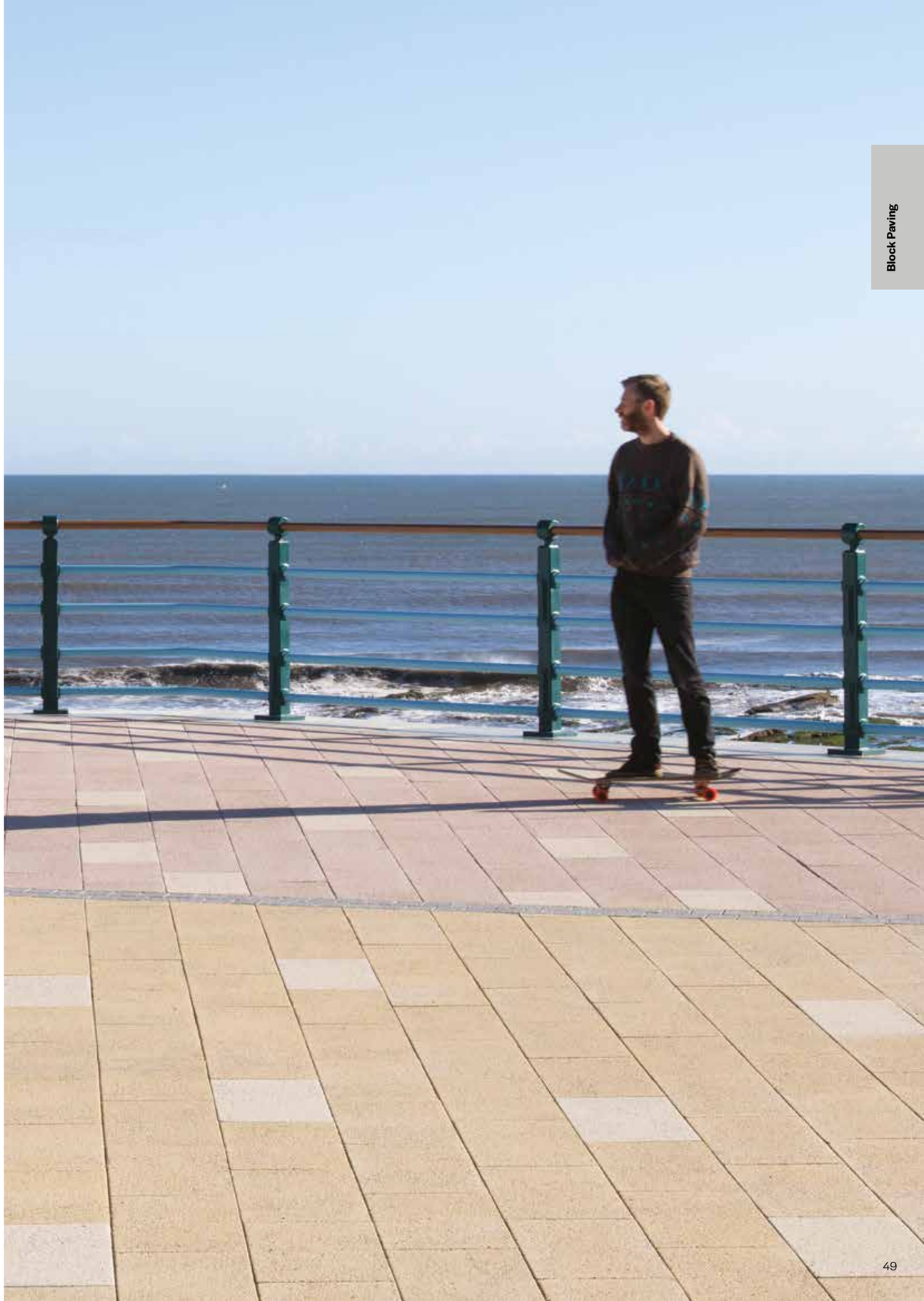
300 x 300mm

600 x 300mm

Sizes

60mm
80mm

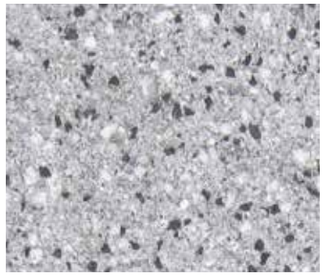
Depths



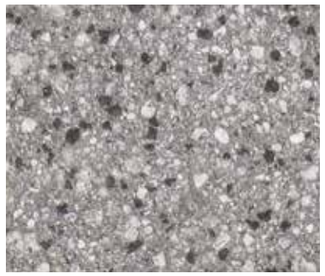
Fusion

Blanc

Silver

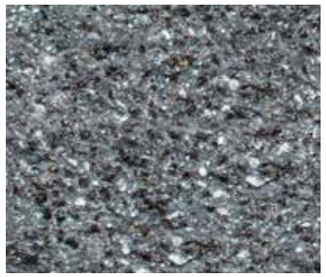


Mid Grey



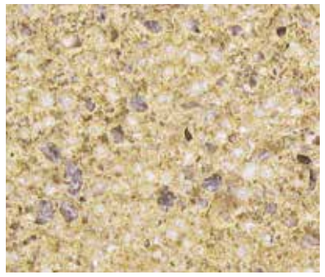
Graphite

Noir

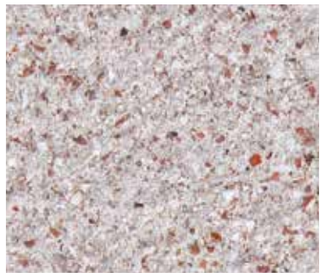


Cream

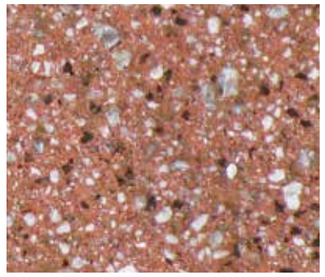
Sandstone



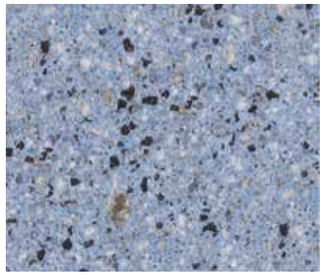
Rose



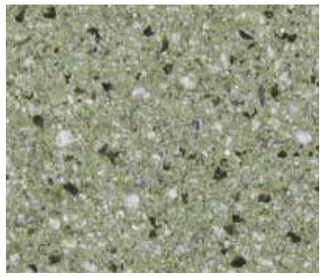
Russet



Azure Blue



Jade Green



IMPORTANT INFORMATION

Tobermore recommend that you separate product groups using contrasting bands of colour as each product is manufactured separately and may have slight variations in colour.

Fusion

TGA
Textured Granite Aggregate
Finish

Permeable | AirClean
Also available as

Pedestrian Use | Light Traffic | Commercial Traffic
Refer to relevant guidance in BS 7533

BIM Level 2

Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Block		
Manufactured to	**BS EN 1338:2003**	100x100x60mm 200x100x60mm 200x200x60mm 100x100x80mm	200x100x80mm 200x200x80mm 300x200x80mm 300x300x80mm
	BS EN 1339:2003	300x200x60mm 300x300x60mm	600x300x60mm 600x300x80mm
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >350kgs/m³ cement		
Surface Finish	Textured Granite Aggregate		
Granite Content in Surface Layer (Not less than %)	**53%** Azure Blue, Cream, Graphite, Jade Green, Mid Grey, Russet, Silver **45%** Sandstone **20%** Rose **8%** Blanc **3%** Noir		
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence		
Strength	**BS EN 1338:2003**	Typical tensile splitting strength of >3.6MPa	
	BS EN 1339:2003	Typical tensile splitting strength of >5MPa (Class 3)	
Slip/Skid risk	Extremely Low		
Installed to	**BS 7533-3:2005**	100x100x60mm 200x100x60mm 200x200x60mm 100x100x80mm	200x100x80mm 200x200x80mm 300x200x80mm 300x300x80mm
	BS 7533-4:2006	300x200x60mm 300x300x60mm	600x300x60mm 600x300x80mm
NSS	**Plus** Q24 110 **Create** 45-20-64/400	100x100x60mm 200x100x60mm 200x200x60mm 100x100x80mm	200x100x80mm 200x200x80mm 300x200x80mm 300x300x80mm
	Plus Q25 315 **Create** 45-20-64/395	300x200x60mm 300x300x60mm	600x300x60mm 600x300x80mm
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design and the most suitable product size for your application. Available from www.bsigroup.com		
Energy used	100% renewable energy		
Water used	100% water used from rainwater harvesting system and groundwater bore hole		
Recycled content	Not less than 6%		
Carbon Footprint	**60mm** 26kgCo²e/m² **80mm** 34kgCo²e/m²		
Recyclable	100% of this product can be recycled		
Manufacturing & Delivery	From one location within the UK		
breeam rating www.**bre**.co.uk	**60mm: A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved when used in conjunction with a prepared recycled sub-base. **80mm: B**, according to the Green Guide to Specification, 4th Edition 2009. **A**, can be achieved when used in conjunction with a prepared recycled sub-base.		

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Fusion 60mm **BIM**	100 x 100 x 60	Graphite, Silver	YES	11.52	0.96	100	1152	1630	1620
		Mid Grey, Sandstone	MTO						
	200 x 100 x 60	Graphite, Silver	YES	13.44	2.24	50	672	1810	1800
		Mid Grey, Sandstone	MTO						
	200 x 200 x 60	Graphite, Silver	YES	12.48	2.08	25	312	1765	1755
		Mid Grey, Sandstone	MTO						
	300 x 200 x 60	Graphite, Silver	YES	12.48	3.12	16.66	208	1765	1755
		Mid Grey, Sandstone	MTO						
		Azure Blue, Blanc, Cream, Jade Green, Noir, Rose, Russet	SO						
	300 x 300 x 60	Graphite, Silver	YES	9.36	2.34	11.11	104	1325	1315
		Mid Grey, Sandstone	MTO						
		Azure Blue, Blanc, Cream, Jade Green, Noir, Rose, Russet	SO						
	600 x 300 x 60	Graphite, Silver	YES	9.36	4.68	5.55	52	1325	1315
		Mid Grey, Sandstone	MTO						
		Azure Blue, Blanc, Cream, Jade Green, Noir, Rose, Russet	SO						
Fusion 80mm **BIM**	100 x 100 x 80	Graphite, Silver	YES	9.6	0.96	100	960	1756	1746
		Mid Grey, Sandstone	MTO						
	200 x 100 x 80	Graphite, Silver	YES	9.6	1.6	50	480	1756	1746
		Mid Grey, Sandstone	MTO						
	200 x 200 x 80	Graphite, Silver	YES	9.6	1.6	25	240	1756	1746
		Mid Grey, Sandstone	MTO						
	300 x 200 x 80	Graphite, Silver	YES	9.6	2.4	16.66	160	1756	1746
		Mid Grey, Sandstone	MTO						
		Azure Blue, Blanc, Cream, Jade Green, Noir, Rose, Russet	SO						
	300 x 300 x 80	Graphite, Silver	YES	7.2	1.8	11.11	80	1319	1309
		Mid Grey, Sandstone	MTO						
		Azure Blue, Blanc, Cream, Jade Green, Noir, Rose, Russet	SO						
	600 x 300 x 80	Graphite, Silver	YES	7.2	3.6	5.55	40	1319	1309
		Mid Grey, Sandstone	MTO						
		Azure Blue, Blanc, Cream, Jade Green, Noir, Rose, Russet	SO						

BIM - This product is available to download from our website in BIM Level 2 format.

Sienna

Versatile, contemporary paving.

Sienna is a modern textured block paving product ideal for use in contemporary schemes. With a natural granite appearance and in a range of natural, long lasting colours, Sienna is an attractive and practical block paving solution.

- Manufactured with natural granite aggregates
- Superb hard-wearing granite surface
- Vibrant long-lasting colours
- Creates a striking, contemporary look

PrimeTop® Ef-Stop®

208 x 173mm

240 x 160mm

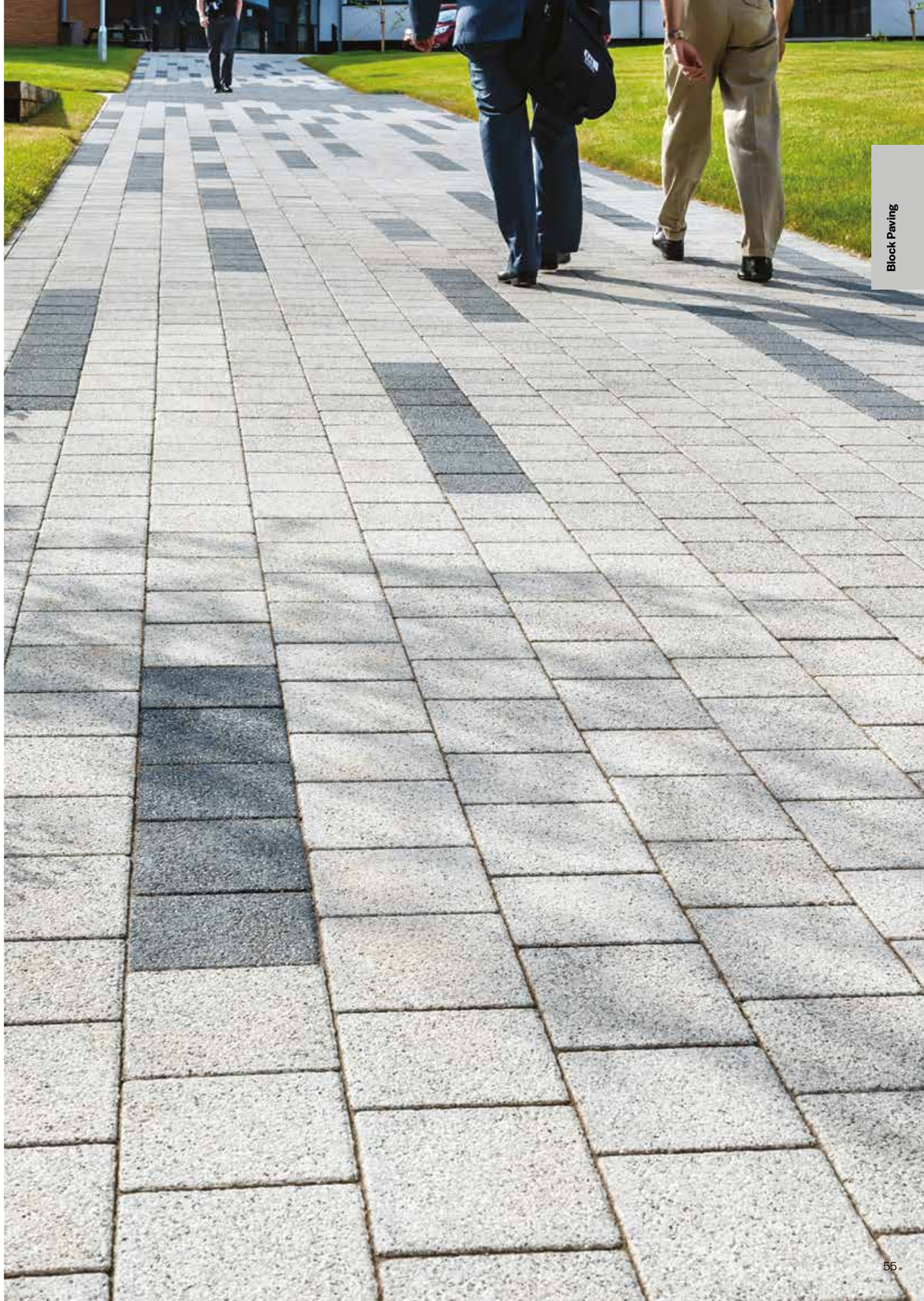
Single Sizes

173 x 173mm 208 x 173mm

Duo Sizes
Both sizes in one pack

50mm
60mm
80mm

Depths



Tobermore

Sienna

TGA	Permeable
Textured Granite Aggregate	
Finish	Also available as

Pedestrian Use | Light Traffic | Commercial Traffic | Machine Lay

Refer to relevant guidance in BS 7533

BIM Level 2

Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Block
Manufactured to	BS EN 1338:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >350kgs/m^3 cement
Surface Finish	Textured Granite Aggregate
Granite Content	Not less than 53% of granite aggregate in surface layer for Silver and Graphite; Not less than 45% of granite aggregate in surface layer for Sandstone.
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >3.6MPa
Slip/Skid risk	Extremely Low
Installed to	BS 7533-3:2005
NBS	**Plus** Q24 110 **Create** 45-20-64/400
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design and the most suitable product size for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	100% of this product can be recycled
Carbon Footprint * kgCo^{2}e/m^2	**50mm** / **60mm** / **80mm** Silver 20* 24* 32* Sandstone 22* 26* 34* Graphite 22* 26* 34*
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam **rating** www.**bre**.co.uk	**50/60mm: A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved when used in conjunction with a prepared recycled sub-base. **80mm: B**, according to the Green Guide to Specification, 4th Edition 2009. **A**, can be achieved when used in conjunction with a prepared recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

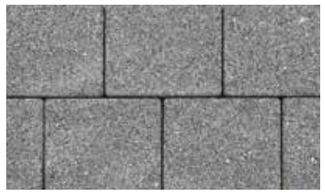
Stock

product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Sienna 50mm	208 x 173 x 50	Graphite, Sandstone, Silver	YES	14.04	2.34	27.79	390	1638	1628
Sienna Duo 50mm (both sizes in one pack)	208 x 173 x 50 173 x 173 x 50	Graphite, Sandstone, Silver	YES	13.86	0.99	30.3	210 210	1617	1607
Sienna 60mm **ML**	208 x 173 x 60	Graphite, Sandstone, Silver	YES	12.96	2.16	27.79	360	n/a	1822
Sienna Duo 60mm (both sizes in one pack) **BIM**	208 x 173 x 60 173 x 173 x 60	Graphite, Sandstone, Silver	YES	12.87	0.99	30.3	195 195	1818	1808
Sienna 80mm	240 x 160 x 80	Graphite, Silver	YES	9.6	1.92	26.04	250	1755	1745
		Sandstone	MTO						
Sienna Duo 80mm (both sizes in one pack) **BIM**	208 x 173 x 80 173 x 173 x 80	Graphite, Silver	YES	9.9	0.99	30.3	150 150	1812	1802

BIM - This product is available to download from our website in BIM Level 2 format. **ML** - This product can be hand or machine laid.

Silver

Graphite



Sandstone

IMPORTANT INFORMATION

Light coloured blocks emphasise tyre marks and oil spills. It must be accepted that these products will need more maintenance if the overall appearance is to be maintained.

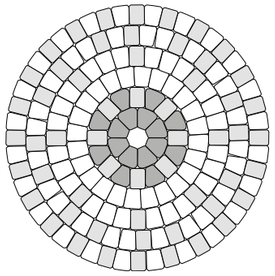
Sienna setts & circles

Attractive borders and features.

Sienna Setts & Circles are crafted with natural granite aggregates for a vibrant granite appearance.

- Manufactured with natural granite aggregates
- Superb hard-wearing granite surface
- Vibrant long-lasting colours
- Creates a striking, contemporary look

PrimeTop® Ef-Stop®



Sienna Circular System

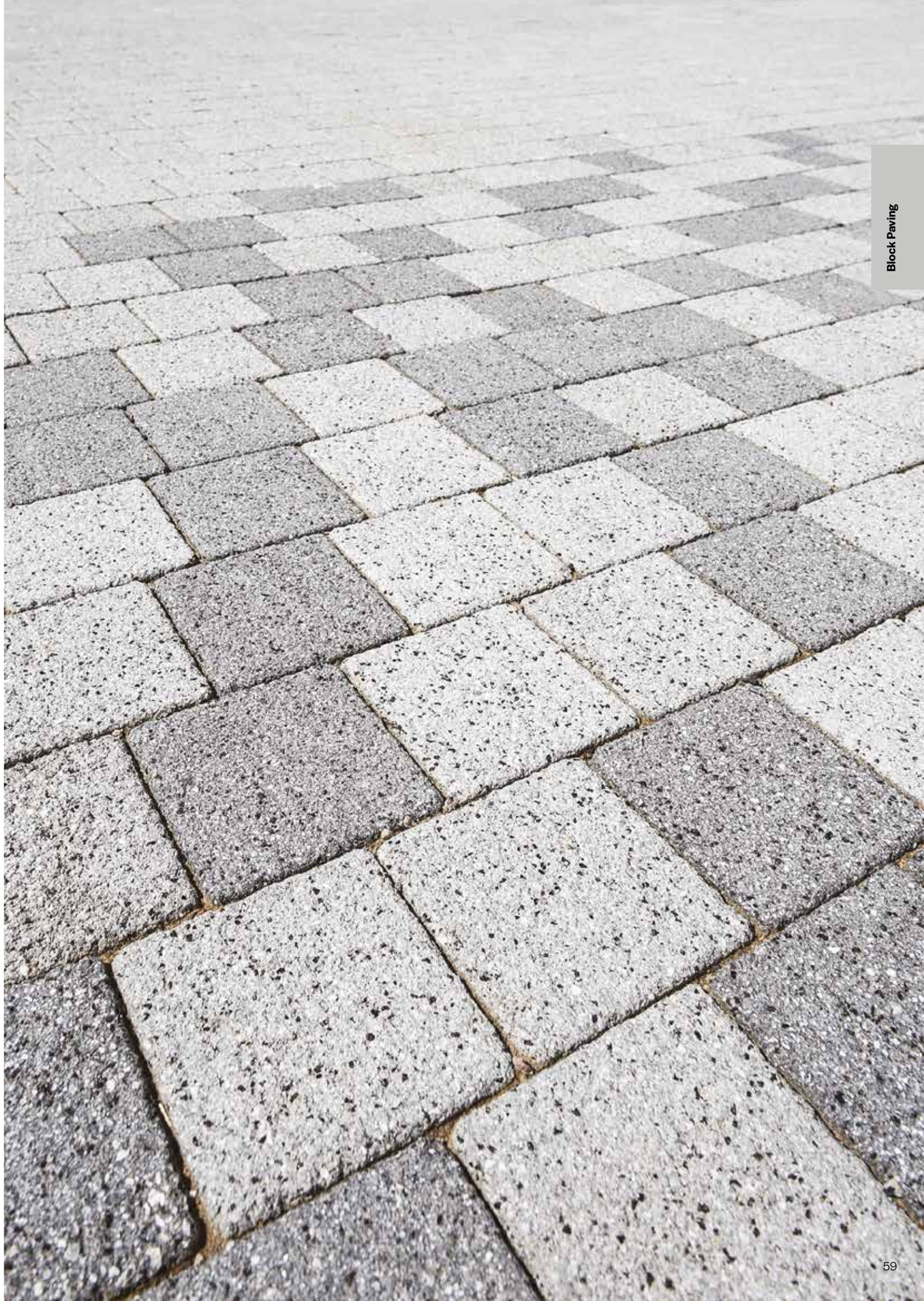
Sienna Circular is a specially designed system for easy creation of circular patterns. Please refer to our website for laying guidelines.

90mm x VARIOUS (all sizes in one pack)

100mm x 100mm

50mm
60mm

Depths



Sienna setts & circles

TGA
Textured
Granite Aggregate

Finish

Pedestrian Use | Light Traffic

Refer to relevant guidance in BS 7533

Specification

	PrimeTop®	Ef-Stop®
Product type	Concrete Paving Block	
Manufactured to	BS EN 1338:2003	
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >350kgs/m³ cement	
Surface Finish	Textured Granite Aggregate	
Granite Content	Not less than 53% of granite aggregate in surface layer for Silver and Graphite; Not less than 45% of granite aggregate in surface layer for Sandstone	
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence	
Strength	Typical tensile splitting strength of >3.6MPa	
Slip/Skid risk	Extremely Low	
Installed to	BS 7533-3:2005	
NSS (Setts)	**Plus** Q24 110 **Create** 45-20-64/410	
NSS (Circle)	**Plus** Q24 110 **Create** 45-20-64/400	
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design and the most suitable product size for your application. Available from www.bsigroup.com	
Energy used	100% renewable energy	
Water used	100% from our rainwater harvesting system and groundwater bore hole	
Recycled content	Not less than 6%	
Carbon Footprint	Sienna Setts	
	50mm Silver	20kgCo²e/m²
	Sandstone	22kgCo²e/m²
	Graphite	22kgCo²e/m²
	60mm Silver	24kgCo²e/m²
	Sandstone	26kgCo²e/m²
	Graphite	26kgCo²e/m²
	Sienna Circle	
	60mm Silver	24kgCo²e/m²
	Sandstone	26kgCo²e/m²
	Graphite	26kgCo²e/m²
Recyclable	100% of this product can be recycled	
Manufacturing & Delivery	From one location within the UK	
breeam rating www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved when used in conjunction with a prepared recycled sub-base.	

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Sienna Setts	100 x 100 x 50	Graphite, Sandstone, Silver	YES	11.25	0.96	100	1152	1345	1335
	various x 60	Graphite, Sandstone, Silver	YES	12.35	0.96	117	1445	1737	1727
Sienna Circle (sold as one unit)	60 x 1.5m diameter	Graphite, Sandstone, Silver	YES	-	1.76 (per circle)	-	-	245	245

Silver

Sandstone

Graphite

IMPORTANT INFORMATION

Tobermore recommend that you separate product groups using contrasting bands of colour as each product is manufactured separately and may have slight variations in colour.

Light coloured blocks emphasise tyre marks and oil spills. It must be accepted that these products will need more maintenance if the overall appearance is to be maintained.

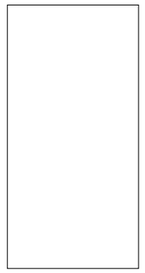
Chieftain VS5

Large format paving.

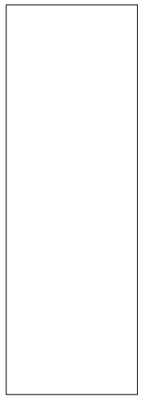
Chieftan VS5 is a highly durable large format paving block with shift protection. Chieftan VS5 has a textured, low-skid surface, available in four natural colours.

- Shift protection on five sides of the block provides maximum stability
- Granite appearance
- Manufactured with natural granite aggregates
- Superb hard-wearing granite surface
- Vibrant long-lasting colours
- Creates a striking, contemporary look

VS5 **PrimeTop®** **Ef-Stop®**



800 x 400mm



1200 x 400mm

Sizes

100mm
120mm

Depths

VS5

Shift Protection

Chieftain VS5 generates the optimum stability through a combination of shift protection on the 4 vertical sides, plus a 5th, as the base is grooved to create a clawing effect on the sand bed, preventing horizontal movement.

The 100mm or 120mm block depth and 2mm joint, further enhances stability and protects the jointing material from wash out, ensuring consistent performance over time.

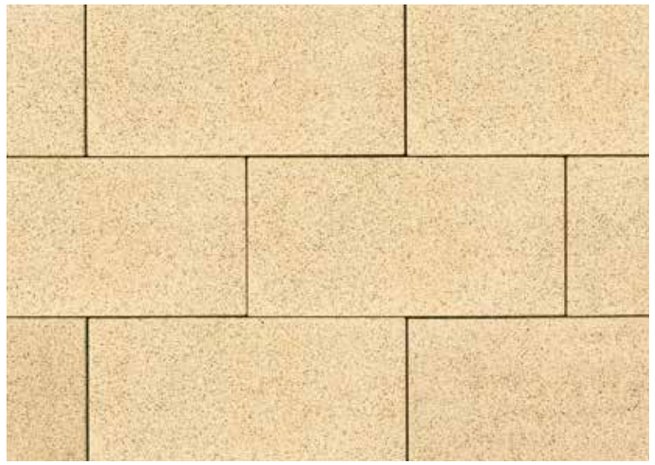
Chieftain VS5

TGA
Textured
Granite Aggregate
Finish

Pedestrian Use | Light Traffic | Commercial Traffic | Machine Lay | Shift Protection

Refer to relevant guidance in BS 7533

BIM Level 2



Specification

☑ VS5 ☑ PrimeTop® ☑ Ef-Stop®

Product type	Concrete Paving Block
Manufactured to	BS EN 771-3: 2011
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >350kgs/m³ cement
Surface Finish	Textured Granite Aggregate
Granite Content	Not less than 53% of granite aggregate in surface layer for Silver, Mid Grey, Graphite; Not less than 45% of granite aggregate in surface layer for Sandstone.
Spacer	Unique VS5 spacer which adds shift protection on five sides of the block
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >5MPa (Class 3)
Slip/Skid risk	Extremely Low
Installed to	Specific installation instructions are available from Tobermore
NBS	**Plus** Q25 315 **Create** 45-20-64/395
Applications	**800x400x100mm & 1200x400x120mm** Suitable for pedestrianised areas. Technical guidance must be considered for any other application. The latest British Standard should be consulted to ensure the correct sub-base design is achieved prior to installation. Specialised design advice can be obtained by contacting Tobermore directly. **800x400x120mm** Suitable for pedestrianised areas or areas with occasional vehicular traffic overrun. Technical guidance must be considered for any other application. The latest British Standard should be consulted to ensure the correct sub-base design is achieved prior to installation. Specialised design advice can be obtained by contacting Tobermore directly.
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 6% (all colours except Sandstone)
Carbon Footprint	**100mm** Silver 40kgCo²e/m² Mid Grey 43kgCo²e/m² Sandstone 43kgCo²e/m² Graphite 43kgCo²e/m²
	120mm Silver 48kgCo²e/m² Mid Grey 51kgCo²e/m² Sandstone 51kgCo²e/m² Graphite 51kgCo²e/m²
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	Refer to the Green Guide to Specification, 4th Edition 2009

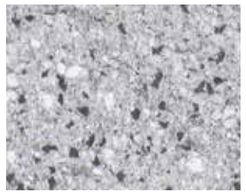
Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

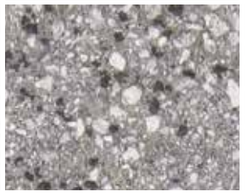
product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Chieftain VS5 **BIM** **ML**	800 x 400 x 100	Graphite, Mid Grey, Sandstone, Silver	SO	5.12	0.64	3.125	16	1156	1146
	800 x 400 x 120	Graphite, Mid Grey, Sandstone, Silver	SO	4.48	0.64	3.125	14	1214	1204
	1200 x 400 x 120	Graphite, Mid Grey, Sandstone, Silver	SO	5.76	0.96	2.08	12	1552	1542

BIM - This product is available to download from our website in BIM Level 2 format. **ML** - This product can be hand or machine laid.

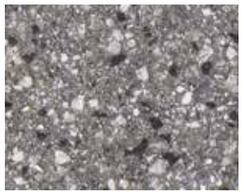
Silver



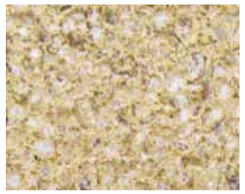
Mid Grey



Graphite



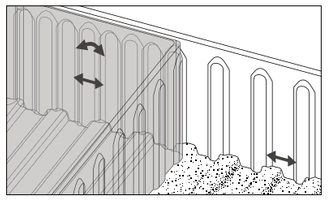
Sandstone

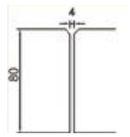


IMPORTANT INFORMATION

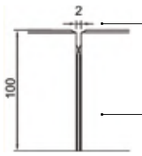
Light coloured blocks emphasise tyre marks and oil spills. It must be accepted that these products will need more maintenance if the overall appearance is to be maintained.

Interlocking system with five side shift protection





Conventional paver
Joint width: 3-5mm



VS5 System
Joint width: 2mm

Better load distribution by using the whole block height.

Excellent protection of joint material against wash-out and suck-out

City Pave VS5

Heavy duty paving for busy applications.

City Pave VS5 is designed for maximum stability with heavy duty use in towns and cities. City Pave VS5 is manufactured with natural granite aggregates for the most robust performance and a modern appearance.

300 x 150mm

Sizes

100mm

Depths

- Shift protection on five sides of the block provides maximum stability
- Granite appearance
- Manufactured with natural granite aggregates
- Superb hard-wearing surface
- Vibrant long-lasting colours
- Creates a striking, contemporary look

VS5 **PrimeTop®** **Ef-Stop®**

VS5

Shift Protection

City Pave VS5 generates the optimum stability through a combination of shift protection on the 4 vertical sides, plus a 5th, as the base is grooved to create a clawing effect on the sand bed, preventing horizontal movement.

The 100mm block depth and 2mm joint, further enhances stability and protects the jointing material from wash out, ensuring consistent performance over time.

Tobermore

City Pave VS5

TGA	AirClean
Textured Granite Aggregate	
Finish	Also available as

Pedestrian Use | Light Traffic | Commercial Traffic | Shift Protection

Refer to relevant guidance in BS 7533

BIM Level 2

Specification

VS5 PrimeTop® Ef-Stop®

Product type	Concrete Paving Block
Manufactured to	BS EN 1338:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >350kgs/m^3 cement
Surface Finish	Textured Granite Aggregate
Granite Content	Not less than 53% of granite aggregate in surface layer for Silver, Mid Grey, Graphite
Spacer	Unique VS5 spacer which adds shift protection on five sides of the block
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >3.6MPa
Slip/Skid risk	Extremely Low
Installed to	Specific installation instructions are available from Tobermore
NSS	**Plus** Q24 110 **Create** 45-20-64/400
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 6%
Carbon Footprint	**Silver** 40kgCo^{2}e/m^2 **Graphite** 43kgCo^{2}e/m^2 **Mid Grey** 43kgCo^{2}e/m^2
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam **rating** www.**bre**.co.uk	Refer to the Green Guide to Specification, 4th Edition 2009

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
City Pave VS5 **BIM**	300 x 150 x 100	Graphite, Mid Grey, Silver	YES	7.2	1.8	22.2	160	1565	1555

BIM - This product is available to download from our website in BIM Level 2 format.

Silver

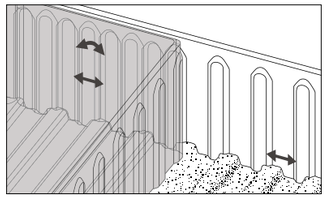
Mid Grey

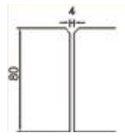
Graphite

IMPORTANT INFORMATION

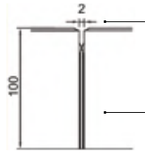
Light coloured blocks emphasise tyre marks and oil spills. It must be accepted that these products will need more maintenance if the overall appearance is to be maintained. Tobermore recommend that you separate product groups using contrasting bands of colour as each product is manufactured separately and may have slight variations in colour.

Interlocking system with five side shift protection





Conventional paver
Joint width: 3-5mm



VS5 System
Joint width: 2mm

Better load distribution by using the whole block height.

Excellent protection of joint material against wash-out and suck-out

Manhattan

Linear, plank paving.

Attractive plank-style paving making a strong design statement. Manhattan block paving is perfect for contemporary schemes and provides a textured finish in natural granite aggregates.

- Granite appearance
- Manufactured with natural granite aggregates
- Superb hard-wearing granite surface
- Vibrant long-lasting colours
- Creates a striking, contemporary look

PrimeTop® Ef-Stop®

600 x 150mm

Single Size

250 x 122mm

300 x 122mm

300 x 164mm

400 x 122mm

400 x 164mm

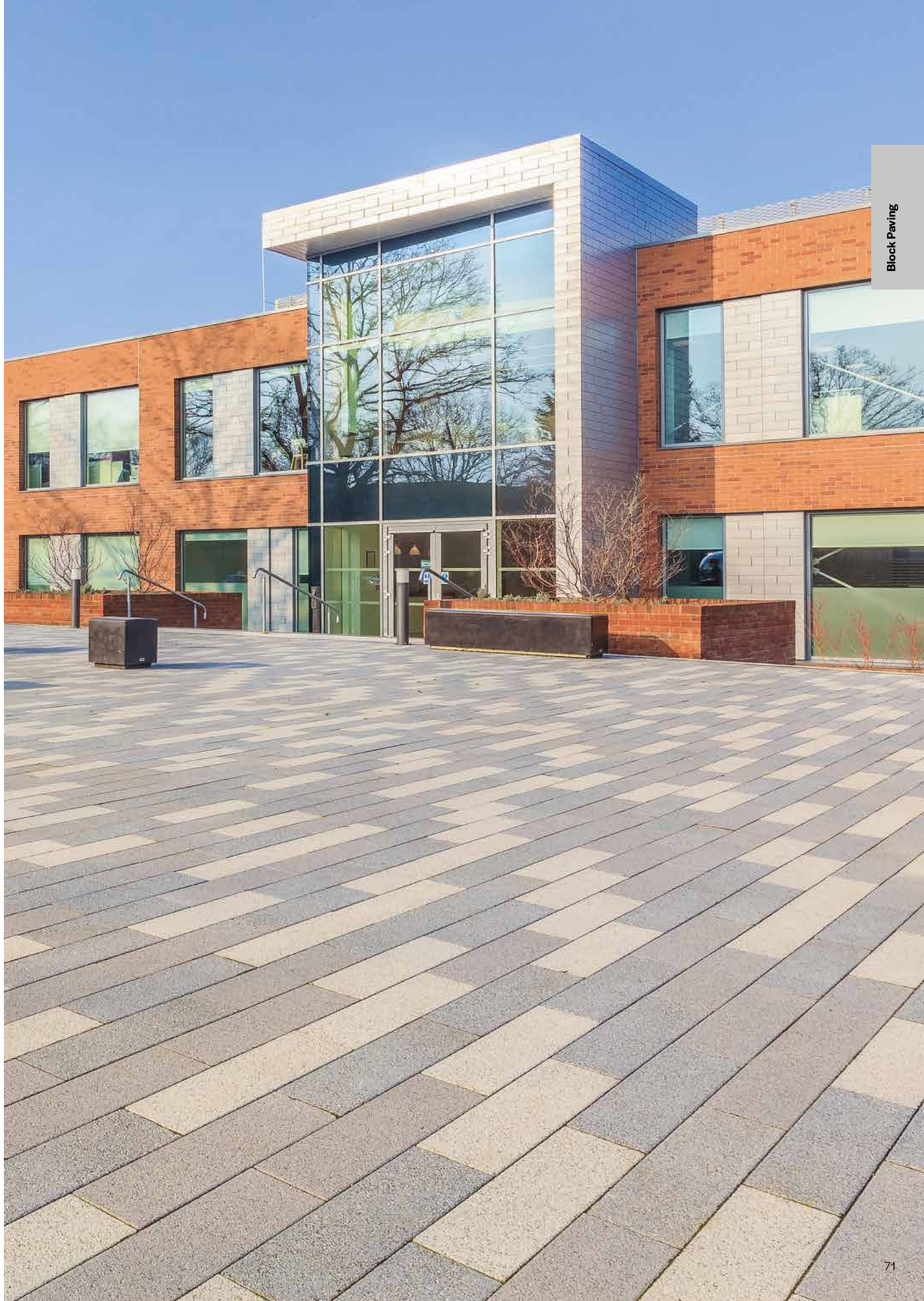
500 x 122mm

500 x 164mm

Mixed Length Sizes
All sizes in one pack

80mm
120mm

Depths



Manhattan

TGA
Textured
Granite Aggregate
Finish

Pedestrian Use | Light Traffic | Commercial Traffic

Refer to relevant guidance in BS 7533

BIM Level 2

Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Block
Manufactured to	BS EN 1338:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >350kgs/m³ cement
Surface Finish	Textured Granite Aggregate
Granite Content	Not less than 53% of granite aggregate in surface layer for Silver, Mid Grey and Graphite; Not less than 45% of granite aggregate in surface layer for Sandstone
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >3.6MPa
Slip/Skid risk	Extremely Low
Installed to	BS 7533-3:2005
NBS	**Plus** Q24 110 **Create** 45-20-64/400
Applications	**600x150x80mm & Mixed length x80mm** Suitable for pedestrianised areas. Technical guidance must be considered for any other application. The latest British Standard should be consulted to ensure the correct sub-base design is achieved prior to installation. Specialised design advice can be obtained by contacting Tobermore directly. **Mixed length x120mm** Suitable for pedestrianised areas or areas with occasional vehicular traffic overrun. Technical guidance must be considered for any other application. The latest British Standard should be consulted to ensure the correct sub-base design is achieved prior to installation. Specialised design advice can be obtained by contacting Tobermore directly.
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 6%
Carbon Footprint	**80mm** Silver 32kgCo²e/m² Mid Grey 34kgCo²e/m² Sandstone 34kgCo²e/m² Graphite 34kgCo²e/m² **120mm** Silver 48kgCo²e/m² Mid Grey 51kgCo²e/m² Sandstone 51kgCo²e/m² Graphite 51kgCo²e/m²
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	Refer to the Green Guide to Specification, 4th Edition 2009

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

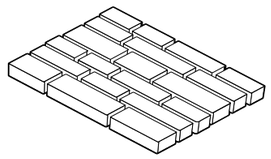
Stock

product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Manhattan BIM	600 x 150 x 80	Graphite, Mid Grey, Silver	YES	9	4.5	11.11	100	1646	1636
		Sandstone	MTO						
	Mixed length x 80	Graphite, Mid Grey, Sandstone Silver	YES	9.6	0.96	20.7	200	1765	1755
	Mixed length x 120	Graphite, Mid Grey, Sandstone Silver	MTO	6.72	0.96	20.7	140	1852	1842

BIM - This product is available to download from our website in BIM Level 2 format.

product	size (mm)	no. per pack
Manhattan [Mixed length] (all sizes in one pack)	250 x 122 x 80	40
	300 x 122 x 80	40
	300 x 164 x 80	20
	400 x 122 x 80	40
	400 x 164 x 80	20
	500 x 122 x 80	20
	500 x 164 x 80	20

product	size (mm)	no. per pack
Manhattan 120mm [Mixed length] (all sizes in one pack)	250 x 122 x 120	28
	300 x 122 x 120	28
	300 x 164 x 120	14
	400 x 122 x 120	28
	400 x 164 x 120	14
	500 x 122 x 120	14
	500 x 164 x 120	14



Silver

Mid Grey

Graphite

Sandstone

IMPORTANT INFORMATION

Light coloured blocks emphasise tyre marks and oil spills. It must be accepted that these products will need more maintenance if the overall appearance is to be maintained.

Tobermore recommend that you separate product groups using contrasting bands of colour as each product is manufactured separately and may have slight variations in colour.

Tegula

Traditional styling.

Tegula is a popular and versatile product that provides an aged appearance, reminiscent of stone setts and ideal for traditional settings. Tegula is created using an innovative aging process and comes in a wide selection of multi-tone colours.

- Processed to give an aged, antique appearance
- Vibrant long-lasting colours
- Significantly reduced efflorescence
- Suitable for both modern or period properties

Ef-Stop®

140 x 140mm

175 x 140mm

173 x 173mm

208 x 173mm

104 x 173mm

240 x 160mm

Single Sizes

130 x 173mm 173 x 173mm 197 x 173mm

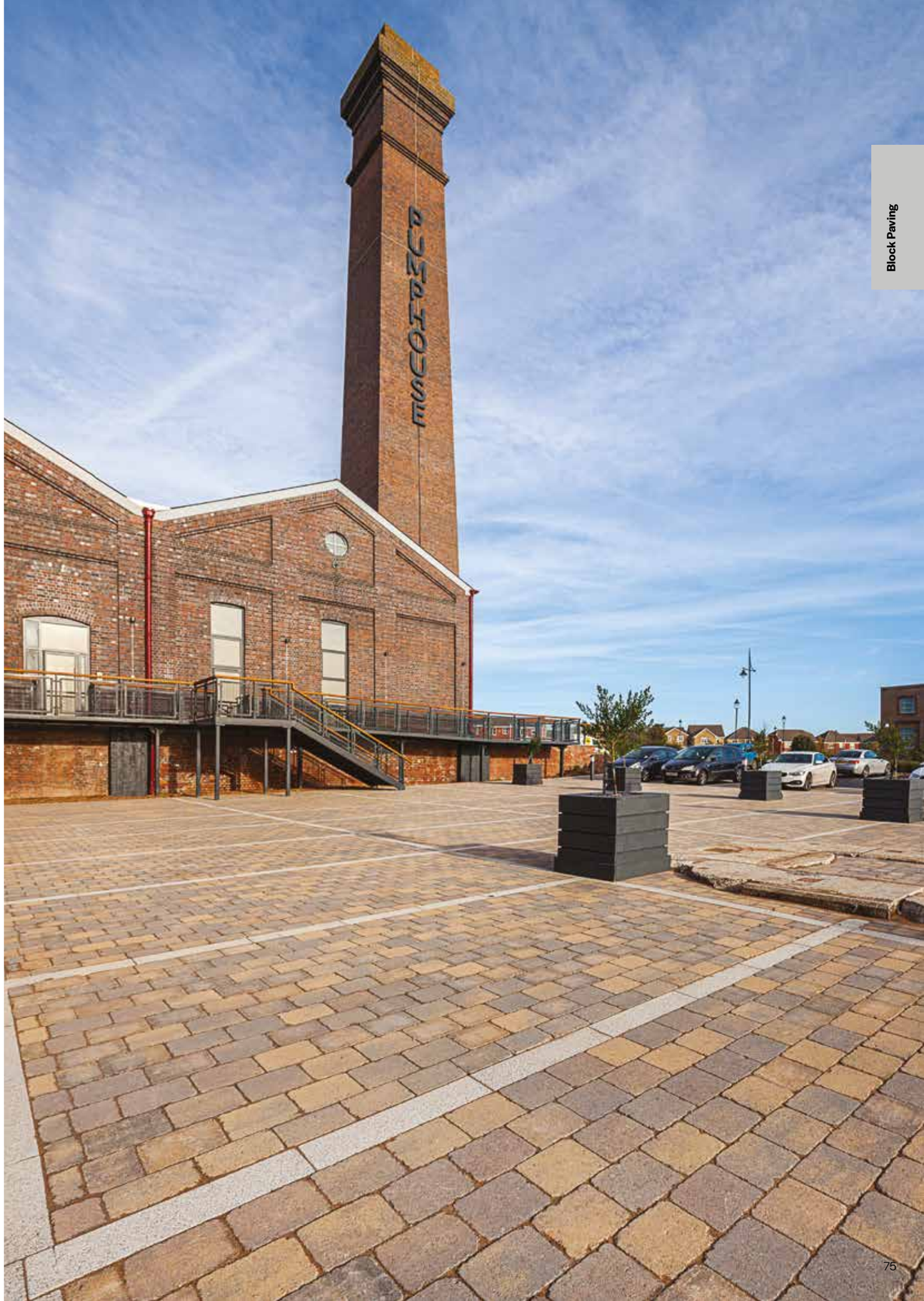
Trio 50mm Sizes
All three sizes in one pack

138 x 173mm 173 x 173mm 208 x 173mm

Trio 60mm Sizes
All three sizes in one pack

50mm
60mm
80mm

Depths



Tegula

Finish	Also available as
A Aged	Permeable

Refer to relevant guidance in BS 7533: Pedestrian Use; Light Traffic; Commercial Traffic; Machine Lay

BIM Level 2

Heather

Bracken

Brindle

Slate

Cedar

Natural

Charcoal

Golden

Specification

Ef-Stop®

Product type	Concrete Paving Block
Manufactured to	BS EN 1338:2003
Surface Finish	Processed to give an aged appearance
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >3.6MPa
Slip/Skid risk	Extremely Low
Installed to	BS 7533-3:2005
NSS	**Plus** Q24 110 **Create** 45-20-64/400
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design and the most suitable product size for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 10% (all colours except Natural, Golden & Slate)
Carbon Footprint	**50mm** 18kgCo^{2}e/m^2 **60mm** 24kgCo^{2}e/m^2 **80mm** 32kgCo^{2}e/m^2
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeom **rating** www.**bre**.co.uk	**50/60mm: A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved when used in conjunction with a prepared recycled sub-base. **80mm: B**, according to the Green Guide to Specification, 4th Edition 2009. **A**, can be achieved when used in conjunction with a prepared recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Tegula 50mm [void pack]	175 x 140 x 50	Bracken, Cedar, Charcoal, Heather, Slate	YES	12.79	1.03	40.82	522	1429	n/a
Tegula 50mm [pallet]	140 x 140 x 50	Bracken, Cedar, Charcoal, Heather, Slate	YES	13.77	1.53	51	702	1550	n/a
Tegula 50mm	175 x 140 x 50	Bracken, Cedar, Charcoal, Heather, Slate	YES	15.43	2.2	40.82	630	n/a	1714
	140 x 140 50	Bracken, Cedar, Charcoal, Heather, Slate	YES	15.87	1.76	51	810	n/a	1765
Tegula Trio 50mm [void pack] (all three sizes in one pack)	197 x 173 x 50	Bracken, Brindle, Cedar, Charcoal, Golden, Heather, Slate	YES	13.05	1.05	33.3	174	1453	1453
	173 x 173 x 50						174		
	130 x 173 x 50						87		
Tegula 60mm BIM ML	208 x 173 x 60	Bracken, Cedar, Charcoal, Heather, Natural, Slate	YES	12.95	2.16	27.79	360	1810	1800
	173 x 173 x 60	Bracken, Cedar, Charcoal, Heather, Natural, Slate	YES	12.56	1.79	33.41	420	1743	1733
Tegula Trio 60mm (all three sizes in one pack) ML	208 x 173 x 60	Bracken, Cedar, Charcoal, Heather, Slate	YES	10.5	1.05	33.3	120	1475	1465
	173 x 173 x 60						110		
	138 x 173 x 60						120		
Tegula 80mm	240 x 160 x 80	Bracken, Cedar, Charcoal, Heather, Slate	YES	9.6	1.92	26.03	250	1748	1738
	208 x 173 x 80	Bracken, Cedar, Charcoal, Heather, Natural, Slate	YES	9.72	1.62	27.79	270	1770	1760
	173 x 173 x 80	Bracken, Cedar, Charcoal, Heather, Natural, Slate	YES	9.43	1.35	33.41	315	1717	1707
	104 x 173 x 80	Bracken, Cedar, Charcoal, Heather, Natural, Slate	YES	9.07	1.3	55.58	504	1628	1618

BIM - This product is available to download from our website in BIM Level 2 format. **ML** - This product can be hand or machine laid.

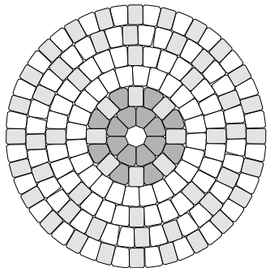
Tegula setts & circles

Traditional styling.

With Tegula Setts & Circles you can create an authentic aged effect. We manufacture Tegula Setts & Circles in five colours, so you can be even more creative with your paving design.

- Processed to give an aged, antique appearance
- Vibrant long-lasting colours
- Significantly reduced efflorescence
- Suitable for both modern or period properties
- Ideal for creating borders

Ef-Stop®



Tegula Circular System

Tegula Circular is a specially designed system for easy creation of circular patterns. Please refer to our website for laying guidelines.

90mm x VARIOUS (all sizes in one pack)

100mm x 100mm

50mm
60mm

Depths

Tegula setts & circles

A
Aged
Finish

Pedestrian Use | Light Traffic

Refer to relevant guidance in BS 7533

BIM Level 2

Specification

Ef-Stop®

Product type	Concrete Paving Block
Manufactured to	BS EN 1338:2003
Surface Finish	Processed to give an aged appearance
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >3.6MPa
Slip/Skid risk	Extremely Low
Installed to	BS 7533-3:2005
NSS (Setts)	**Plus** Q24 110 **Create** 45-20-64/410
NSS (Circle)	**Plus** Q24 110 **Create** 45-20-64/400
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design and the most suitable product size for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 10% (all colours except Natural & Golden)
Carbon Footprint	Tegula Setts: **50mm** 17kgCo²e/m²; **60mm** 22kgCo²e/m² Tegula Circle: **50mm** 19kgCo²e/m²; **60mm** 24kgCo²e/m²
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved when used in conjunction with a prepared recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Tegula Setts BIM	Various x 50	Bracken, Charcoal, Golden, Heather, Natural	YES	8.5	0.85	117	995	930	920
	100 x 100 x 50	Bracken, Charcoal, Golden, Heather	YES	11.52	0.96	100	1152	1215	1205
	Various x 60	Bracken, Charcoal, Golden, Heather, Natural	YES	6.8	0.85	117	796	872	862
Tegula Circle (sold as one unit)	50 x 1.5m diameter	Bracken, Charcoal, Golden, Heather, Natural	YES	-	1.76 (per circle)	-	1 circle	200	200
	60 x 1.5m diameter	Bracken, Charcoal, Golden, Heather	YES	-	1.76 (per circle)	-	1 circle	239	239

BIM - This product is available to download from our website in BIM Level 2 format.

Heather

Bracken

Natural

Charcoal

Golden

Retro

Classic European styling.

Retro block paving is reminiscent of the paved streets and plazas of Northern Europe and is the ideal paving to add character to a traditional scheme. Its slender shape and textured aged surface is particularly suited to more intimate spaces in addition to expansive use.

- Processed to give an aged, antique appearance
- Vibrant long-lasting colours
- Suitable for both modern or traditional projects
- Creates a vintage, cobbled look
- Option to lay textured side up, smooth side up or mixed

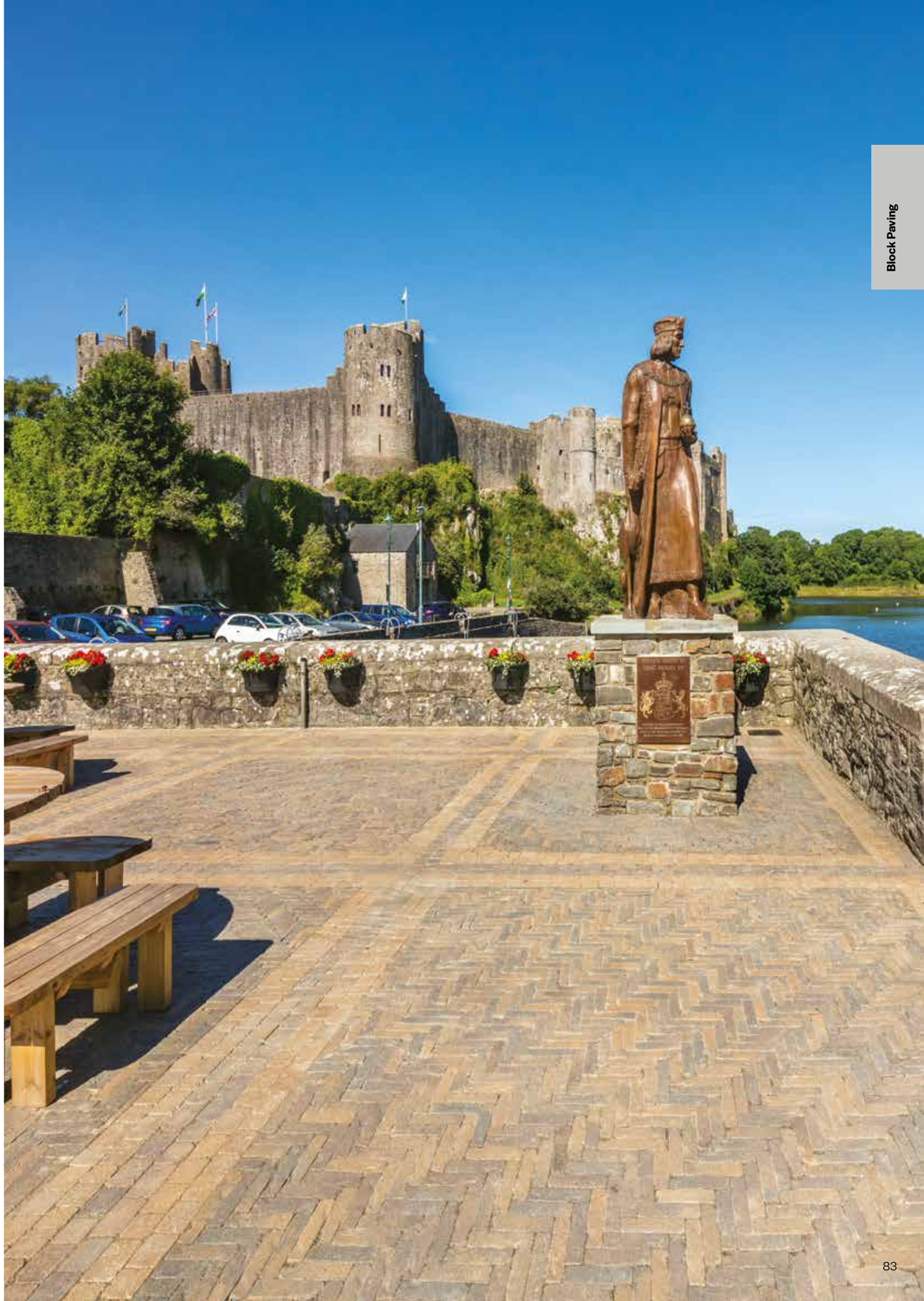
190 x 50mm

Sizes

60mm

Depths

Ef-Stop®



Tobermore

Retro

A
Aged
Finish

Pedestrian Use | Light Traffic | Commercial Traffic

Refer to relevant guidance in BS 7533

Specification

Ef-Stop®

Product type	Concrete Paving Block
Manufactured to	BS EN 1338:2003
Manufacturing process	Processed to give aged appearance
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >3.6MPa
Slip/Skid risk	Extremely Low
Installed to	BS 7533-3:2005
NSS	**Plus** Q24 110 **Create** 45-20-64/400
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 10%
Carbon Footprint	22kgCo^{2}e/m^2
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BS EN ISO 14021:1026 and BES 6001.

Stock

product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Retro	190 x 50 x 60	Bracken, Heather	YES	6.5	2 or 4	105.3	684	820	810

Heather

Bracken

IMPORTANT INFORMATION

Please note that Retro has both a textured and a smooth surface, either can be laid upwards as the paving surface. It is important that laying instructions state clearly:

- Textured surface up
- Smooth surface up
- Mixed - Smooth and Textured surfaces up

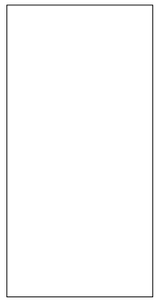
Lincoln

Smooth finish paving.

Lincoln block paving, with its smooth, multi-tone finish is a practical Hard-wearing choice, particularly for pedestrian use.

- Vibrant long-lasting colours
- Superb hard-wearing smooth surface
- Pencil chamfer significantly reduces maintenance
- Smooth surface is ideal for wheeled traffic

PrimeTop® Ef-Stop®



600 x 300mm

Sizes

60mm

Depths

S Smooth

Finish

Pedestrian Use | Light Traffic

Refer to relevant guidance in BS 7533

BIM Level 2

Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Block
Manufactured to	BS EN 1339: 2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >350kgs/m^3 cement
Surface Finish	Smooth
Chamfer	Pencil Chamfer
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >5MPa (Class 3)
Slip/Skid risk	Extremely Low
Installed to	BS 7533-4: 2006
NSS	**Plus** Q25 315 **Create** 45-20-64/395
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 12%
Carbon Footprint	22kgCo^{2}e/m^2
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved when used in conjunction with a prepared recycled sub-base.

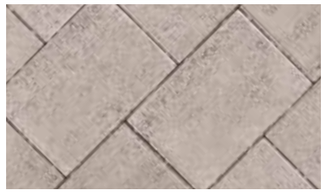
Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Lincoln BIM	600 x 300 x 60	Charcoal, Natural	SO	9.36	4.68	5.5	52	1325	1315

BIM - This product is available to download from our website in BIM Level 2 format.

Natural



Charcoal

Shannon

Versatile smooth paving.

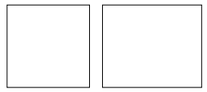
Shannon's tight joints and chamfered edges make this product a popular choice for pedestrianised areas in addition to trafficked locations. Its smooth surface and range of vibrant long lasting colours allow for design flexibility.

- Vibrant long-lasting colours
- Superb hard-wearing smooth surface
- Pencil chamfer significantly reduces maintenance
- Smooth surface is ideal for use with trolleys, cases etc.

PrimeTop® Ef-Stop®

208 x 173mm

Sizes

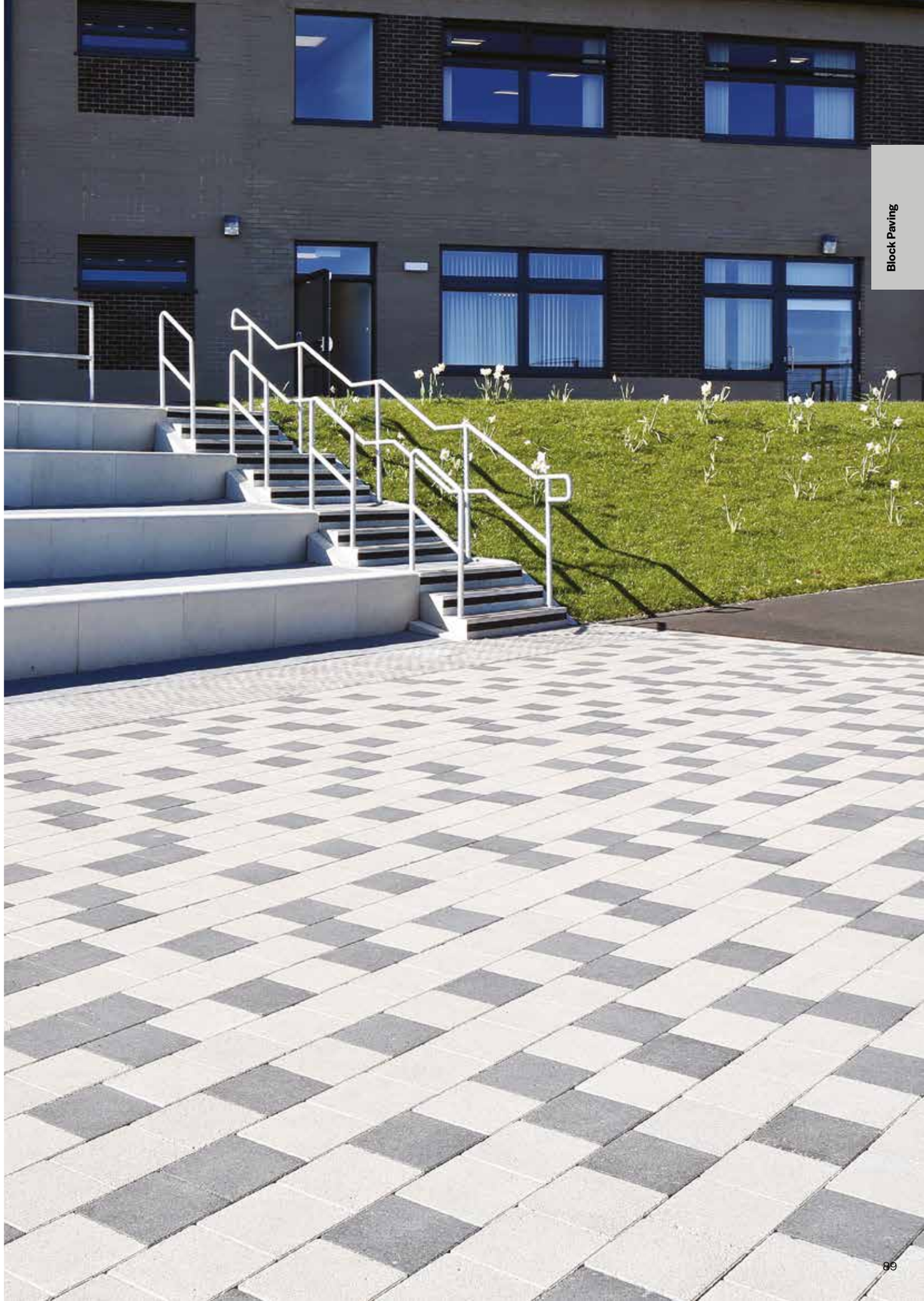


173 x 173mm 208 x 173mm

Duo Sizes
Both sizes in one pack

50mm
60mm
80mm

Depths



Shannon

Finish	Also available as
S Smooth	Permeable

Pedestrian Use | Light Traffic | Commercial Traffic | Machine Lay

Refer to relevant guidance in BS 7533

BIM Level 2

Specification

	PrimeTop® Ef-Stop®
Product type	Concrete Paving Block
Manufactured to	BS EN 1338:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >350kgs/m^3 cement
Surface Finish	Smooth
Chamfer	Pencil Chamfer
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >3.6MPa
Slip/Skid risk	Extremely Low
Installed to	BS 7533-3:2005
NSS	**Plus** Q24 110 **Create** 45-20-64/400
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design and the most suitable product size for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 12%
Carbon Footprint	**50mm** 18kgCo^{2}e/m^2 **60mm** 22kgCo^{2}e/m^2 **80mm** 30kgCo^{2}e/m^2
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam **rating** www.**bre**.co.uk	**50/60mm: A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved when used in conjunction with a prepared recycled sub-base. **80mm: B,** according to the Green Guide to Specification, 4th Edition 2009. **A**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Shannon 50mm [void pack]	208 x 173 x 50	Bracken, Brindle, Charcoal, Heather, Natural, Slate	YES	13.32	1.08	27.79	370	1545	1545
Shannon 50mm	208 x 173 x 50	Bracken, Charcoal, Heather	YES	14.04	2.34	27.79	390	n/a	1628
Shannon Duo 50mm (both sizes in one pack) **ML**	208 x 173 x 50 173 x 173 x 50	Bracken, Charcoal, Heather, Slate	YES	13.86	0.99	30.3	210 210	1617	1607
Shannon 60mm	208 x 173 x 60	Bracken, Charcoal, Heather, Natural	YES	12.96	2.16	27.79	360	1792	1782
Shannon Duo 60mm (both sizes in one pack) **BIM**	208 x 173 x 60 173 x 173 x 60	Bracken, Charcoal, Heather	YES	12.87	0.99	30.3	195 195	1815	1805
Shannon 80mm	208 x 173 x 80	Bracken, Brindle, Charcoal, Heather, Natural	SO	10.07	1.44	27.79	280	1843	1833

BIM - This product is available to download from our website in BIM Level 2 format. **ML** - This product can be hand or machine laid.

Heather

Bracken

Brindle

Slate

Natural

Charcoal

Pedesta

Attractive smooth finish.

The hard-wearing smooth surface of Pedesta creates a vibrant look in a popular rectangular format. Our PrimeTop manufacturing process creates colours which retain their vibrancy for longer than many other options on the market.

- Superb hard-wearing smooth surface
- Vibrant long-lasting colours
- Rectangular profile allows the creation of distinctive patterns
- Creates a stunning, smooth look
- Pencil Edge Pedesta also available

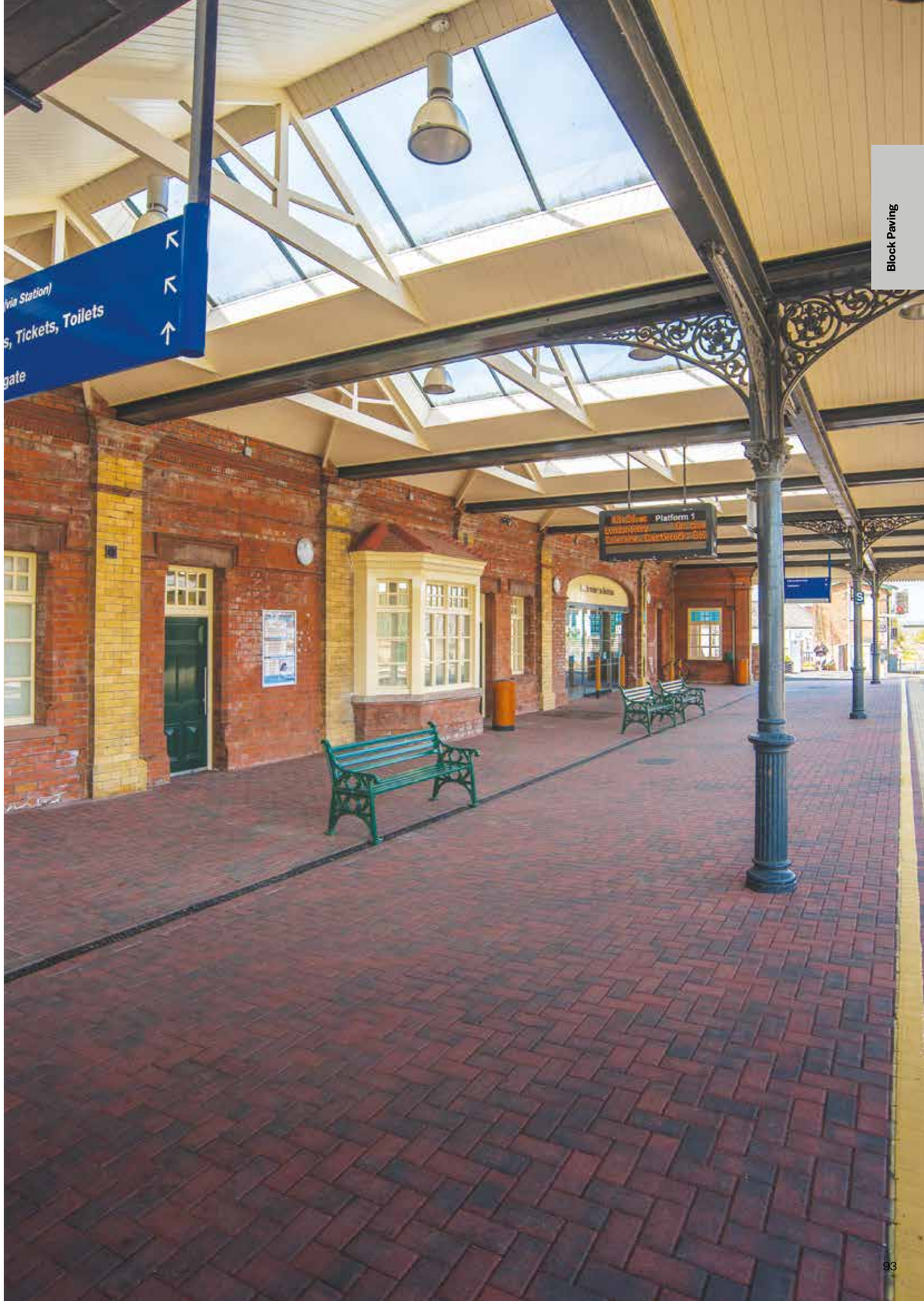
200 x 100mm

Sizes

50mm
60mm
80mm

Depths

☑ PrimeTop® ☑ Ef-Stop®



Tobermore

Pedesta

Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Block
Manufactured to	BS EN 1338:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >350kgs/m^3 cement
Surface Finish	Smooth
Chamfer	Standard or Pencil Chamfer
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >3.6MPa
Slip/Skid risk	Extremely Low
Installed to	BS 7533-3:2005
NSS	**Plus** Q24 110 **Create** 45-20-64/400
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design and the most suitable product size for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 12%
Carbon Footprint	**50mm** 18kgCo^{2}e/m^2 **60mm** 22kgCo^{2}e/m^2 **80mm** 30kgCo^{2}e/m^2
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**50/60mm: A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base. **80mm: B**, in according to the Green Guide to Specification, 4th Edition 2009. **A**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Finish: Smooth

Also available as: Permeable

Pedestrian Use | Light Traffic | Commercial Traffic

Refer to relevant guidance in BS 7533

BIM Level 2

Bracken

Heather

Brindle

Slate

Natural

Charcoal

Red

Golden

Stock

product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Pedesta 50mm [void pack]	200 x 100 x 50	Bracken, Brindle, Charcoal, Golden, Heather, Red, Slate	YES	13.76	0.96	50	688	1545	1545
Pedesta 60mm BIM	200 x 100 x 60	Bracken, Brindle, Charcoal, Heather	YES	13.44	2.24	50	672	1810	1800
Pedesta 60mm (pencil edge)	200 x 100 x 60	Charcoal, Natural	YES	13.44	2.24	50	672	1810	1800
Pedesta 80mm	200 x 100 x 80	Bracken, Brindle, Charcoal, Heather	YES	9.6	1.6	50	480	1724	1714
Pedesta 80mm (pencil edge)	200 x 100 x 80	Charcoal, Natural,	YES	9.6	1.6	50	480	1724	1714
		Bracken, Brindle	MTO						

BIM - This product is available to download from our website in BIM Level 2 format.

Pembury

Attractive textured finish.

An attractive, textured surface makes Pembury block paving a highly practical choice. Pembury is available in four practical colours, giving you a variety of distinctive layout design options.

- Superb hard-wearing textured surface
- Vibrant long-lasting colours
- Rectangular profile allows the creation of distinctive patterns
- Creates a stunning, textured look

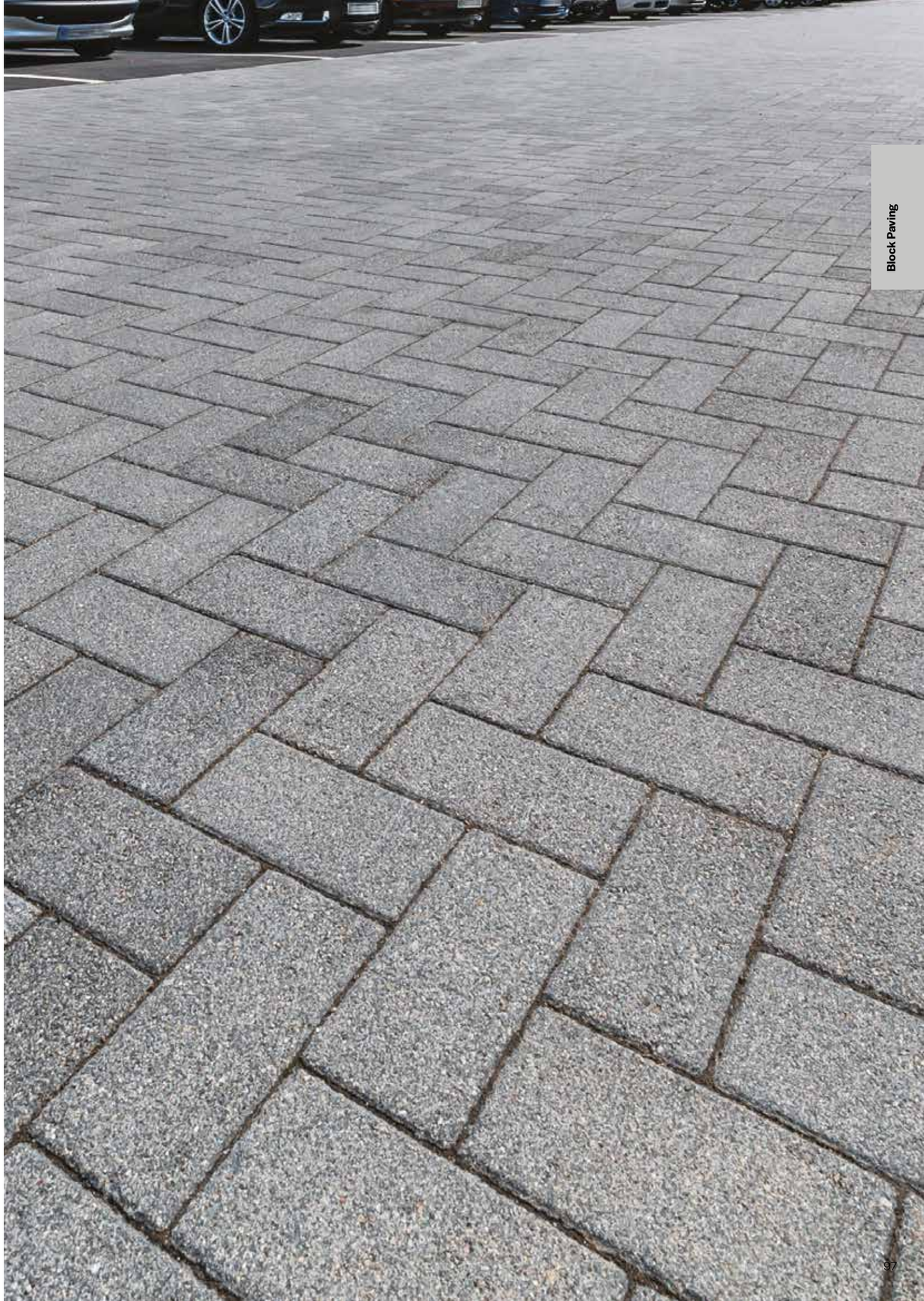
200 x 100mm

Sizes

80mm

Depths

PrimeTop® Ef-Stop®



Tobermore

Pembury

T
Textured

Pedestrian Use | Light Traffic | Commercial Traffic

Refer to relevant guidance in BS 7533

BIM Level 2

Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Block
Manufactured to	BS EN 1338:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >350kgs/m^3 cement
Surface Finish	Textured
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >3.6MPa
Slip/Skid risk	Extremely Low
Installed to	BS 7533-3:2005
NBS	**Plus** Q24 110 **Create** 45-20-64/400
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design a for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 6%
Carbon Footprint	30kgCo^{2}e/m^2
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**B,** according to the Green Guide to Specification, 4th Edition 2009. **A**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Pembury BIM	200 x 100 x 80	Bracken, Brindle, Charcoal, Heather	SO	9.6	1.6	50	480	1724	1714

BIM - This product is available to download from our website in BIM Level 2 format.

Bracken

Heather

Brindle

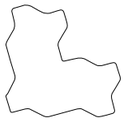
Charcoal

Toberloc

Heavy duty paving for the toughest environments.

Toberloc is a heavy-duty paving block designed for heavy loads in industrial environments. Available in three colour options, ideal for colour marking of traffic and parking zones.

- Interlocking shape helps stability under heavy loads
- Maximum resistance to rutting and lateral forces
- Performs significantly better than 200x100mm paving
- Easy to lay with machines, thus reducing costs
- Superb hard-wearing smooth surface



225 x 225mm

Sizes

80mm

Depths

PrimeTop® Ef-Stop®

S Smooth

Finish

Pedestrian Use | Light Traffic | Commercial Traffic | Machine Lay

Refer to relevant guidance in BS 7533

Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Block
Manufactured to	BS EN 1338:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >350kgs/m³ cement
Surface Finish	Smooth
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >3.6MPa
Slip/Skid risk	Extremely Low
Installed to	BS 7533-3:2005
NBS	**Plus** Q24 110 **Create** 45-20-64/400
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 11%
Carbon Footprint	32kgCo²e/m²
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**B**, according to the Green Guide to Specification, 4th Edition 2009. **A**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	chamfer	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Toberloc ML	225x225x80	Fine	Brindle, Charcoal, Natural	SO	8.9	0.89	26.33	234	1572	1562

ML - This product can be hand or machine laid.

Natural

Charcoal

Brindle

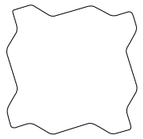
Mammut

Smooth, heavy duty interlocking paving.

Mammut's specialised interlocking shape provides stability in demanding locations and its smooth surface is ideal for wheeled traffic. Available in three colours, enabling creative pattern designs and colour-coding options.

- Interlocking shape helps stability under heavy loads
- Maximum resistance to rutting and lateral forces
- Easy to lay with machines, thus reducing costs
- Superb hard-wearing smooth surface
- Pencil chamfer significantly reduces maintenance
- Smooth surface is ideal for wheeled traffic

PrimeTop® Ef-Stop®



210 x 210mm

Sizes

80mm

Depths

S
Smooth

Finish

Pedestrian Use | Light Traffic | Commercial Traffic | Machine Lay

Refer to relevant guidance in BS 7533

Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Block
Manufactured to	BS EN 1338:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >350kgs/m³ cement
Surface Finish	Smooth
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >3.6MPa
Slip/Skid risk	Extremely Low
Installed to	BS 7533-3:2005
NBS	**Plus** Q24 110 **Create** 45-20-64/400
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 12%
Carbon Footprint	32kgCo²e/m²
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**B**, according to the Green Guide to Specification, 4th Edition 2009. **A**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

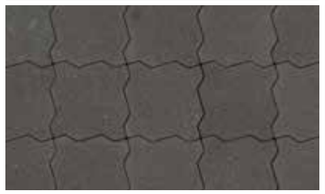
Stock

product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Mammut ML	210 x 210 x 80	Charcoal, Natural, Red	SO	10.38	1.038	22.67	235	1844	1834

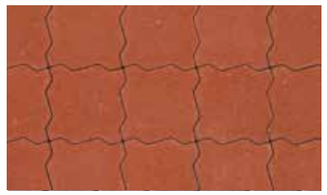
ML - This product can be hand or machine laid.

Natural

Charcoal



Red



Tobermore

Marker Block

Coloured indicator.

Marker Blocks offer a high-performance high-visibility marking solution. Coated in exceptionally hard-wearing pigments they eliminate the need for painting.

- Cost-effective solution where high visibility road markings are required
- Suitable for delineation & signage
- Coated with exceptionally hard-wearing heavy pigments
- Coloured marker eliminating the need for painting

200 x 100mm

Sizes

80mm

Depths

PrimeTop® Ef-Stop®

P
Painted

Finish

Pedestrian Use | Light Traffic | Commercial Traffic

Refer to relevant guidance in BS 7533

Specification

PrimeTop® Ef-Stop®

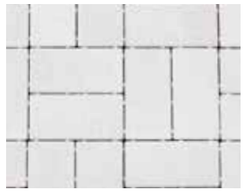
Product type	Concrete Paving Block
Manufactured to	BS EN 1338:2003
Surface Finish	Painted
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >3.6MPa
Slip/Skid risk	Extremely Low
Installed to	BS 7533-3:2005
NSS	**Plus** Q24 110 **Create** 45-20-64/400
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 12%
Carbon Footprint	30kgCo^2e/m^2
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**B**, according to the Green Guide to Specification, 4th Edition 2009. **A**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Marker Block	200 x 100 x 80	Black, Green, White, Yellow	SO	9.6	1.6	50	480	1724	1714

White



Black

Yellow

Green

Turfstone

Grass paving system.

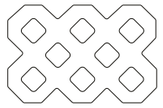
Turfstone is a ground reinforcement grass paving system ideal for occasional car parking or emergency vehicle access where the addition of grass is an attractive feature. The honeycombed cavities are designed to facilitate the growth of grass.

- Honey-combed cavities are designed to facilitate the growth of grass
- Functions as a SuDS permeable pavement

Turfstone typical applications:

- Vehicular access for occasional usage (emergency vehicle and utility access)
- Overspill car parking with infrequent trafficking (sports clubs, cemeteries, caravan parks)
- Nature reserves, sensitive heritage sites and country parks
- Road verges
- Environmental erosion control areas such as riverbanks and waterways
- Field entrances and farm tracks
- SuDS schemes

Ef-Stop®



600 x 400mm

Sizes

100mm

Depths

ST
Standard

Finish

Pedestrian Use | Light Traffic | Commercial Traffic

Refer to relevant guidance in BS 7533

Specification

Ef-Stop®

Product type	Concrete Paving Block
Manufactured to	BS EN 771-3: 2011
Surface Finish	Standard
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >5MPa (Class 3)
Slip/Skid risk	Extremely Low
Installed to	Specific installation guidelines are available from Tobermore
NSS	**Plus** Q25 345 **Create** 45-20-64/390
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 5%
Carbon Footprint	24kgCo^2e/m^2
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeom rating www.**bre**.co.uk	Refer to the Green Guide to Specification, 4th Edition 2009.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BS EN ISO 14021:1026 and BES 6001.

Stock

product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Turfstone	600 x 400 x 100	Natural	Yes	7.68	3.84	4.17	32	1070	1060

Technical Information

Block paving is now an established product in the construction industry and has a number of British Standards (BS) dedicated to the range to ensure they are professionally designed and installed. Refer to the following relevant BS guidelines for detailed information.

Note
BS guidelines are subject to change and therefore you should refer to www.bsigroup.com for the latest version.

Other important references include
- British Port Association heavy duty pavement design manual: "The structural design of heavy duty pavements for ports and other industries".

BS 7533-1:2001	Pavements constructed with clay, natural stone or concrete pavers. Guide for the structural design of heavy duty pavements constructed of clay or concrete pavers.
BS 7533-2:2001	Pavements constructed with clay, natural stone or concrete pavers. Guide for the structural design of lightly trafficked pavements constructed of clay pavers or precast concrete paving blocks.
BS 7533-3:2005+ A1:2009	Pavements constructed with clay, natural stone or concrete pavers. Code of practice for laying precast concrete paving blocks and clay pavers for flexible pavements.
BS 7533-4:2006	Pavements constructed with clay, natural stone or concrete pavers. Code of practice for the construction of pavements of precast concrete flags or natural stone slabs.
BS 7533-7:2010	Pavements constructed with clay, natural stone or concrete pavers. Code of practice for the construction of pavements of natural stone paving units and cobbles, and rigid construction with concrete block paving.
BS 7533-10:2010	Pavements constructed with clay, natural stone or concrete pavers. Guide for the structural design of trafficked pavements constructed of natural stone setts and bound construction with concrete paving blocks.
BS 7533-11:2003	Pavements constructed with clay, natural stone or concrete pavers. Code of practice for the opening, maintenance and reinstatement of pavements of concrete, clay and natural stone.
BS7533-12:2006	Pavements constructed with clay, natural stone or concrete pavers. Code to the design of trafficked pavements constructed on a bound base using concrete paving flags and natural stone slabs.

Important Information

Any technical information provided by Tobermore in relation to any product (whether before or after order) is provided by way of GUIDANCE ONLY and, to the fullest extent permitted by law, without liability on the part of Tobermore for any loss or damage suffered as a result of relying upon it. Such technical information should not be relied upon in substitution for obtaining independent expert advice prior to using any product from both a suitably qualified engineer and building contractor, in particular, as to the suitability of the product for use at the intended site for the intended scheme.

Important notes

Edge restraint
It is essential that the paved area is restrained at the edges to prevent movement. The edge restraints prevent rotation of the blocks under load, reducing the possible loss of laying course material at boundaries and resists lateral movement.

Laying course
If grit is used as the laying course, then fine sand must not be used for jointing as the fine sand can percolate into the bedding layer causing pavement failure.

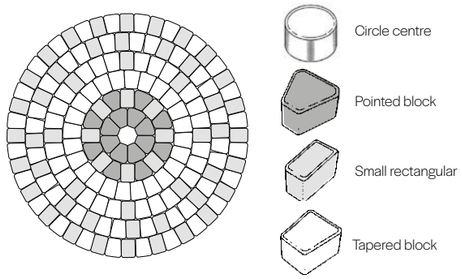
Jointing sand
Block paving is capable of supporting substantial loads because the presence of sand in the joints generates significant friction between adjacent blocks and thereby distributes loads horizontally across the surface of the pavement from block to block. Jointing sand is available from Tobermore. Sand is purchased separately from paving. Very fine jointing sand is not suitable for heavily trafficked areas. Refer to BS7533-3 for all jointing sand specifications. It's worth pointing out that the vast majority of contractors apply the jointing sand before consolidation. This is found to give better results and does not conflict with BS 7533:3.
Block paving can also be installed with a rigid joint. Please refer to BS 7533-10:2010.

Recess manhole covers
Tobermore can supply manhole surrounds suitable for domestic applications only.

Tegula and Sienna Circles laying instructions
The following information is provided as guidance from Tobermore on how to lay your Tegula and Sienna Circles.

The basic circle pattern guide

row	no. of blocks	type
1	1	Circle centre
2	8	Pointed
3 3	8 8	Pointed Small rectangular
4	24	Tapered
5 5	24 8	Tapered Small rectangular
6 6	24 16	Tapered Small rectangular
7 7	24 24	Tapered Small rectangular



Note: After row 7, the Paving Circle diameter is increased using Tegula Setts and Sienna Setts.

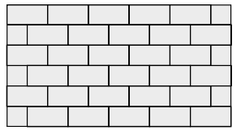
We provide you with the optimum number of bricks to create a circle, size 1.5m diameter. To achieve the best possible circle it is recommended that you follow this pattern precisely. It should be noted, however, that in outer rows of the circle you may need to provide spaces between the blocks. For further assistance contact Tobermore.

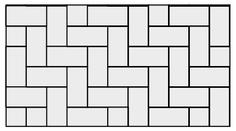
Instructions and warnings
Refer to page 289

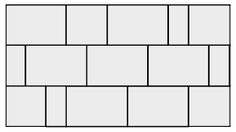
Vibrant long-lasting colours*
Tobermore only use high quality Iron Oxide pigments, (which are made to BS EN 12878), to produce our strong, vibrant and deep colours. Our state-of-the-art equipment makes our products extremely dense thus ensuring that our colours remain intact for very long periods. For example when we examine products which are 10 years old we can see that the colour retention is excellent. Tobermore would recommend that to maintain the colour and quality of product a regular maintenance programme is carried out on all projects.

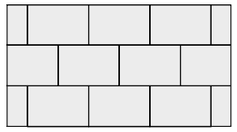
Laying Patterns

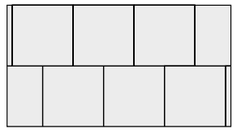
BRAEMAR

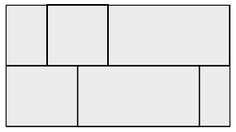

Stretcher bond
200 x 100mm

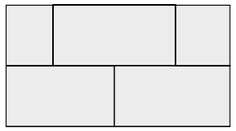

Herringbone 90˚
200 x 100mm


Stretcher bond, random pattern
300x200mm, 200x200mm, 200x100mm

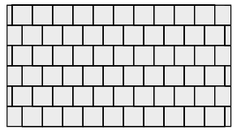

Stretcher bond
300 x 200mm

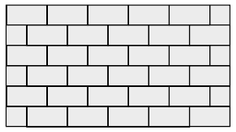

Stretcher bond
300 x 300mm

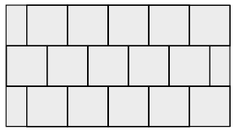

Stretcher bond, random pattern
600x300mm, 300x300mm, 300x200mm

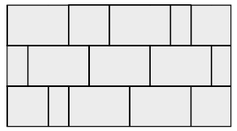

Stretcher bond
600 x 300mm

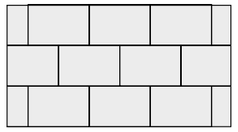
FUSION

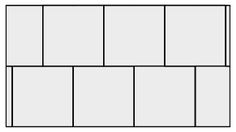

Stretcher bond
100 x 100mm

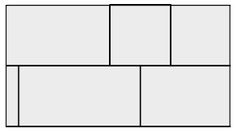

Stretcher bond
200 x 100mm


Stretcher bond
200 x 200mm


Stretcher bond, random pattern
300x200mm, 200x200mm, 200x100mm


Stretcher bond
300 x 200mm

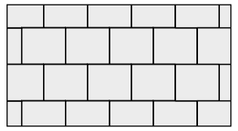

Stretcher bond
300 x 300mm

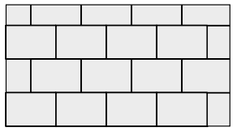

Stretcher bond, random pattern
600x300mm, 300x300mm, 300x200mm

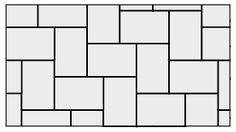
Stretcher bond
600 x 300mm

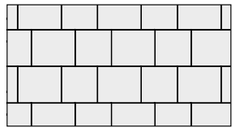
Note: The above displays a selection of example patterns using Braemar and Fusion sizes.

SIENNA

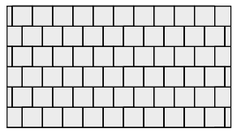

Stretcher bond
208 x 173mm

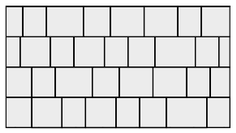

Stretcher bond
240 x 160mm


Herringbone 90˚
240 x 160mm

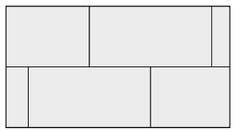

Sienna Duo, Stretcher bond
208 x 173mm, 173 x 173mm

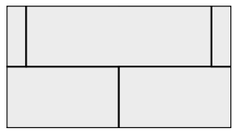
SIENNA SETTS


Stretcher bond
100 x 100mm

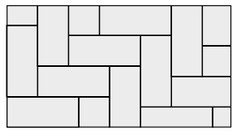

Stretcher bond, random pattern
Mixed lengths

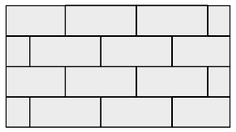
CHIEFTAN VS5


Stretcher bond
800 x 400mm

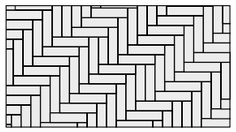

Stretcher bond
1200 x 400mm

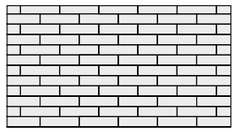
CITY PAVE VS5


Herringbone 90˚
350 x 150mm

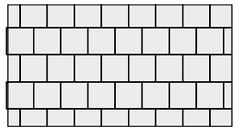

Stretcher bond
350 x 150mm

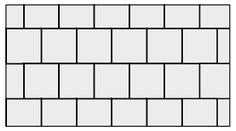
RETRO

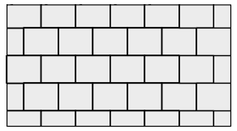

Herringbone 90˚
190 x 50mm

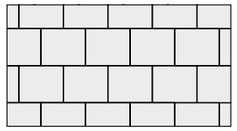

Stretcher bond
190 x 50mm

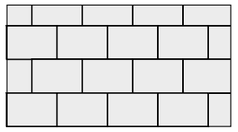
TEGULA

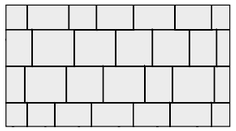

Stretcher bond
140 x 140mm

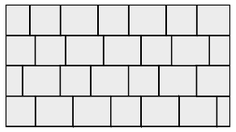

Stretcher bond
173 x 173mm

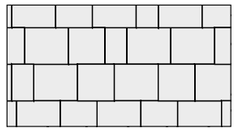

Stretcher bond
175 x 140mm

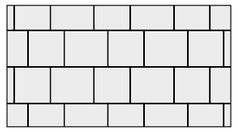

Stretcher bond
208 x 173mm

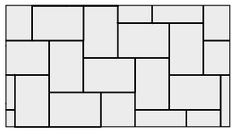

Stretcher bond
240 x 160mm

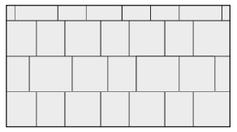

Stretcher bond 50mm Trio
197x173mm, 173x173mm, 130x173mm


Stretcher bond
175 x 140mm, 140 x 140mm

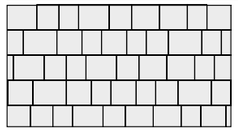

Stretcher bond
208 x 173mm, 173 x 173mm, 104 x 173mm

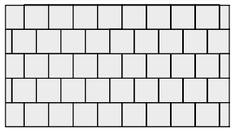

Stretcher bond
208 x 173mm, 173 x 173mm


Herringbone 90˚
240 x 160mm

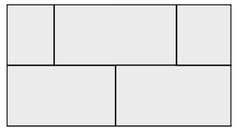

Stretcher bond 60mm Trio
208 x 173mm, 173 x 173mm, 138 x 173mm

TEGULA SETTS

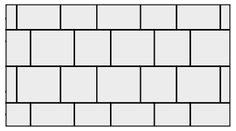

Stretcher bond, random pattern
Mixed lengths

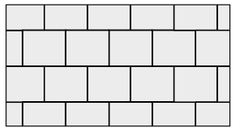

Stretcher bond
100 x 100mm

LINCOLN

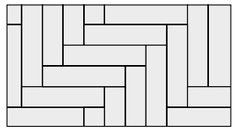

Stretcher bond
600 x 300mm

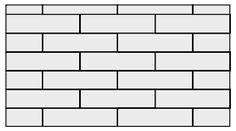
SHANNON

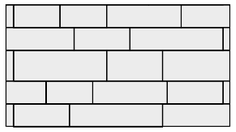

Shannon Duo, Stretcher bond
208 x 173mm, 173 x 173mm


Stretcher bond
208 x 173mm

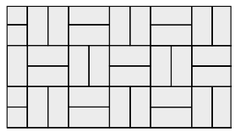
MANHATTAN

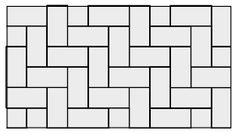

Herringbone 90˚
600 x 150mm

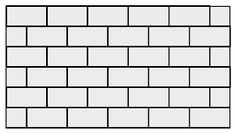

Stretcher bond
600 x 150mm


Stretcher bond, random pattern
Mixed lengths

PEDESTA & PEMBURY


Basket weave
200 x 100mm


Herringbone 90˚
200 x 100mm


Stretcher bond
200 x 100mm

Permeable Paving

Product Range

Hydropave Fusion	114
Hydropave Sienna	118
Hydropave Tegula	122
Hydropave Shannon	126
Hydropave Pedesta	130
Hydropave 240	134
Hydropave Mayfair Flags	136
Hydropave Textured Flags	140
Hydropave Standard Flags	142
Technical Information	144
Laying Patterns	149

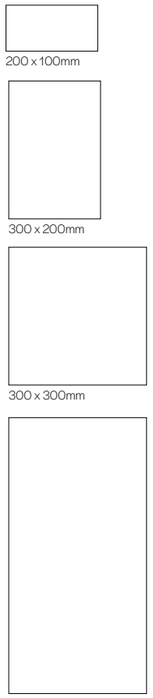
Hydropave Fusion

Permeable paving with natural granite aggregates.

Hydropave Fusion is a popular permeable block paving product, manufactured with a natural granite appearance creating a striking, contemporary look.

- Functions as a SuDS paving system
- Granite appearance
- Manufactured with natural granite aggregates
- Superb hard-wearing granite surface
- Vibrant long-lasting colours
- Creates a striking, contemporary look

☑ PrimeTop® ☑ Ef-Stop®



Sizes

80mm

Depths

Hydropave Fusion

TGA
Textured
Granite Aggregate
Finish

Pedestrian Use | Light Traffic | Commercial Traffic

Refer to relevant guidance in BS 7533

Specification

PrimeTop® Ef-Stop®

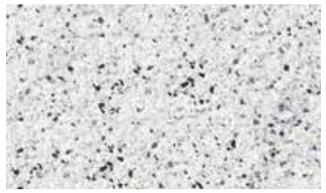
Product type	Concrete Paving Block	
Manufactured to	**BS EN 1338:2003**	200x100x80mm 300x200x80mm 300x300x80mm
	BS EN 1339:2003	600x300x80mm
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >350kgs/m³ cement	
Surface Finish	Textured Granite Aggregate	
Granite Content in Surface Layer (Not less than %)	**53%** **45%** **8%** **3%**	Silver, Graphite, Mid Grey Sandstone Blanc Noir
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence	
Frost Protection	Yes	
Drainage Void Width	5.5% to accommodate correct grit grading, reduce maintenance and maximise drainage flow rate	
Strength	**BS EN 1338:2003**	Typical tensile splitting strength of >3.6MPa
	BS EN 1339:2003	Typical tensile splitting strength of >5MPa (Class 3)
Slip/Skid risk	Extremely Low	
Installed to	BS 7533-3:2005	
NSR	**Plus** Q24 115 **Create** 45-20-64/400 **Plus** Q24 117 **Create** 45-20-64/400 **Plus** Q24 119 **Create** 45-20-64/400	
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design and the most suitable product size for your application. Available from www.bsigroup.com	
Energy used	100% renewable energy	
Water used	100% from our rainwater harvesting system and groundwater bore hole	
Recycled content	Not less than 6%	
Carbon Footprint	34kgCo²e/m²	
Recyclable	100% of this product can be recycled	
Manufacturing & Delivery	From one location within the UK	
breeam **rating** www.**bre**.co.uk	**B**, according to the Green Guide to Specification, 4th Edition 2009. **A,** can be achieved by using a recycled sub-base.	

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

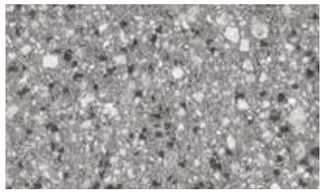
product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Hydropave Fusion	200 x 100 x 80	Graphite, Mid Grey, Silver	YES	9.6	1.6	50	480	1739	1729
	300 x 200 x 80	Blanc, Graphite, Mid Grey, Noir, Sandstone, Silver	MTO	9.6	2.4	16.66	160	1756	1746
	300 x 300 x 80	Blanc, Graphite, Mid Grey, Noir, Sandstone, Silver	MTO	10.8	2.7	11.11	120	1973	1963
	600 x 300 x 80	Blanc, Graphite, Mid Grey, Noir, Sandstone, Silver	MTO	10.8	5.4	5.55	60	1973	1963

Blanc

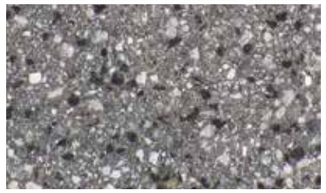


Silver

Mid Grey

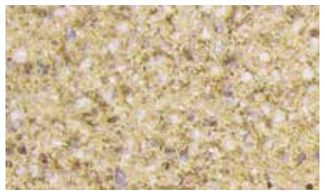


Graphite



Noir

Sandstone



Hydropave Sienna

Striking textured permeable paving.

Hydropave Sienna is a contemporary permeable block paving with granite aggregates available in our Duo mixed size format. Sienna is an attractive and practical block paving solution.

- Functions as a SuDS paving system
- Granite appearance
- Manufactured with natural granite aggregates
- Superb hard-wearing granite surface
- Vibrant long-lasting colours
- Creates a striking, contemporary look

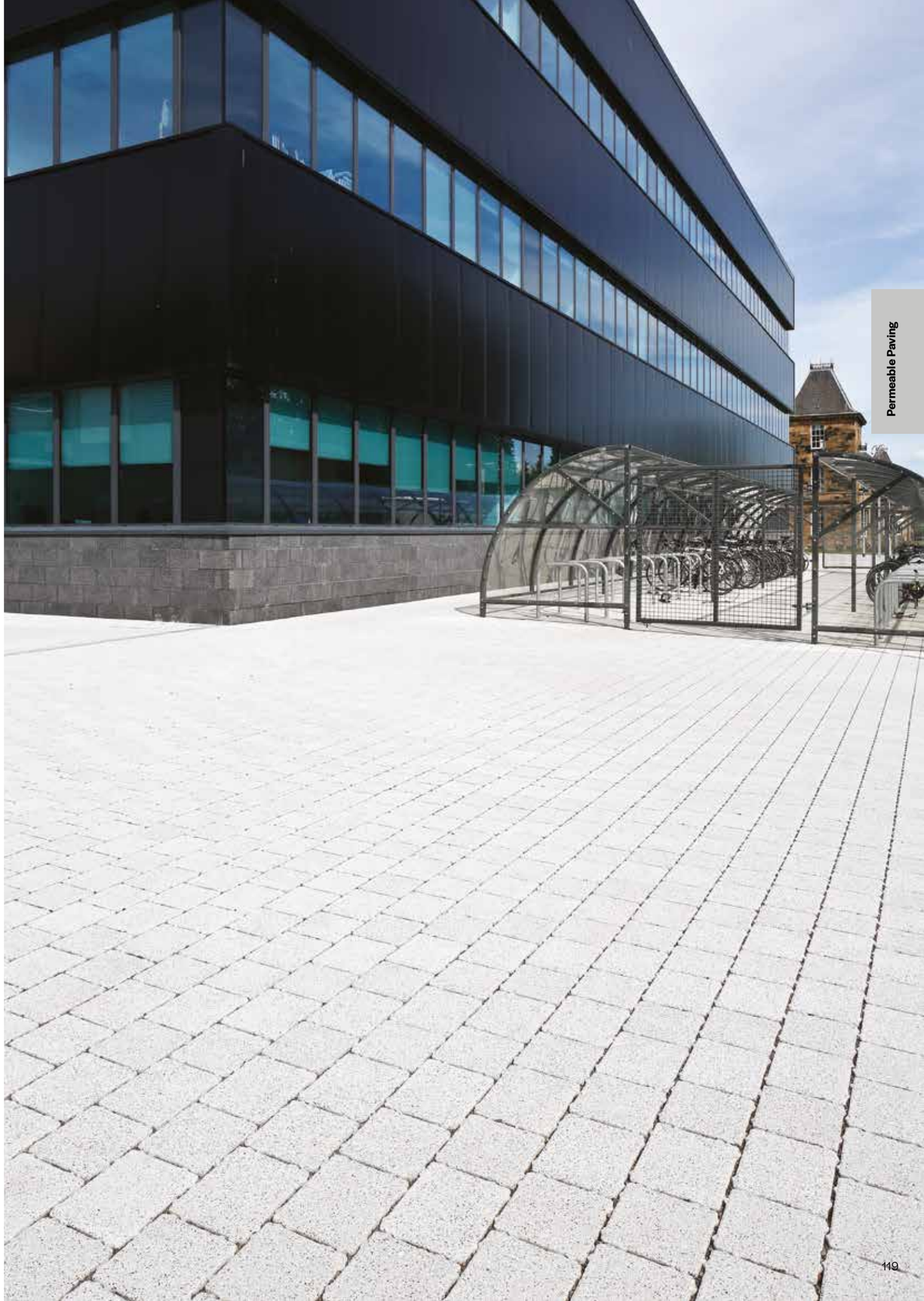
PrimeTop® Ef-Stop®

173 x 173mm 208 x 173mm

Duo Sizes
Both sizes in one pack

60mm

Depths



Hydropave Sienna

TGA
Textured Granite Aggregate
Finish

Pedestrian Use | Light Traffic | Commercial Traffic
Refer to relevant guidance in BS 7533

BIM Level 2

Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Block
Manufactured to	BS EN 1338:2003
Surface Layer	Hard-wearing surface layer with a minimum layer of 4mm and >350kgs/m³ cement
Surface Finish	Textured Granite Aggregate
Granite Content	Not less than 53% of granite aggregate in surface layer for Silver and Graphite; not less than 45% of granite aggregate in surface layer for Sandstone.
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Frost Protection	Yes
Drainage Void Width	5% to accommodate correct grit grading, reduce maintenance and maximise drainage flow rate
Strength	Typical tensile splitting strength of >3.6MPa
Slip/Skid risk	Extremely Low
Installed to	BS 7533-3:2005
NBS	**Plus** Q24 115 **Create** 45-20-64/400 **Plus** Q24 117 **Create** 45-20-64/400 **Plus** Q24 119 **Create** 45-20-64/400
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 6%
Carbon Footprint	**Silver** 24kgCo²e/m² **Sandstone** 26kgCo²e/m² **Graphite** 26kgCo²e/m²
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam **rating** www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Hydropave Sienna Duo (both sizes in one pack) **BIM**	208 x 173 x 60 173 x 173 x 60	Graphite, Sandstone, Silver	YES	12.87	0.99	30	195 195	1800	1790

BIM - This product is available to download from our website in BIM Level 2 format.

Silver

Graphite*

Sandstone*

*Swatches are for colour reference only.

IMPORTANT INFORMATION

Light coloured blocks emphasise tyre marks and oil spills. It must be accepted that these products will need more maintenance if the overall appearance is to be maintained.

Hydropave Tegula

Permeable paving with traditional styling.

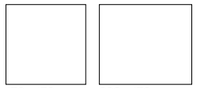
Manufactured to create an aged appearance, Hydropave Tegula permeable block paving is ideal for traditional projects. Available in one solid and four multi-tone colours.

- Functions as a SuDS paving system
- Processed to give an aged, antique appearance
- Vibrant long-lasting colours
- Suitable for both modern or traditional projects

Ef-Stop®

240 x 120mm

Single Size



173 x 173mm 208 x 173mm

Duo Sizes
Both sizes in one pack

60mm
80mm

Depths

Hydropave Tegula

A
Aged
Finish

Pedestrian Use | Light Traffic | Commercial Traffic
Refer to relevant guidance in BS 7533

BIM Level 2

Specification

Ef-Stop®

Product type	Concrete Paving Block
Manufactured to	BS EN 1338:2003
Surface Finish	Processed to give an aged appearance
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Frost Protection	Yes
Drainage Void Width	**60mm** 5% to accommodate correct grit grading, reduce maintenance and maximise drainage flow rate **80mm** 6% to accommodate correct grit grading, reduce maintenance and maximise drainage flow rate
Strength	Typical tensile splitting strength of >3.6MPa
Slip/Skid risk	Extremely Low
Installed to	BS 7533-3:2005
NSS	**Plus** Q24 115 **Create** 45-20-64/400 **Plus** Q24 117 **Create** 45-20-64/400 **Plus** Q24 119 **Create** 45-20-64/400
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design and the most suitable product size for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 12% (all colours except Slate)
Carbon Footprint	**60mm** 24kgCo^2e/m^2 **80mm** 32kgCo^2e/m^2
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**60mm: A** according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base. **80mm: B**, according to the Green Guide to Specification, 4th Edition 2009. **A**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Hydropave Tegula 240 BIM	240 x 120 x 80	Bracken, Charcoal, Slate	YES	10.08	2.02	34.72	350	1781	1771
Hydropave Tegula Duo (both sizes in one pack) BIM	208 x 173 x 60 173 x 173 x 60	Bracken, Cedar, Charcoal, Heather, Slate	YES	12.87	0.99	30	195 195	1721	1711

BIM - This product is available to download from our website in BIM Level 2 format.

Bracken

Heather

Cedar*

Slate*

Charcoal*

*Swatches are for colour reference only.

Hydropave Shannon

Permeable paving with smooth surface.

Hydropave Shannon is a stylish permeable block paving product. Its smooth, contemporary look and wide range of vibrant colours allow for design flexibility.

- Functions as a SuDS paving system
- Superb hard-wearing smooth surface
- Vibrant long-lasting colours

PrimeTop® Ef-Stop®

173 x 173mm 208 x 173mm

Duo Sizes
Both sizes in one pack

60mm

Depths

Tobermore

Hydropave Shannon

S
Smooth
Finish

Pedestrian Use | Light Traffic | Commercial Traffic

Refer to relevant guidance in BS 7533

BIM Level 2

Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Block
Manufactured to	BS EN 1338:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >350kgs/m³ cement
Surface Finish	Smooth
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Frost Protection	Yes
Drainage Void Width	5% to accommodate correct grit grading, reduce maintenance and maximise drainage flow rate
Strength	Typical tensile splitting strength of >3.6MPa
Slip/Skid risk	Extremely Low
Installed to	BS 7533-3:2005
NSS	**Plus** Q24 115 **Create** 45-20-64/400 **Plus** Q24 117 **Create** 45-20-64/400 **Plus** Q24 119 **Create** 45-20-64/400
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 12%
Carbon Footprint	22kgCo²e/m²
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam **rating** www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Hydropave Shannon Duo (both sizes in one pack) **BIM**	208 x 173 x 60 173 x 173 x 60	Bracken, Charcoal, Heather	YES	12.87	0.99	30	195 195	1764	1754

BIM - This product is available to download from our website in BIM Level 2 format.

Bracken

Heather*

Charcoal*

*Swatches are for colour reference only.

Hydropave Pedesta

Versatile permeable paving.

Hydropave Pedesta has a smooth surface and a timeless appeal. Available in five colours, this paving provides you with plenty of scope to create patterns and designs.

- Functions as a SuDS paving system
- Superb hard-wearing smooth surface
- Vibrant long-lasting colours

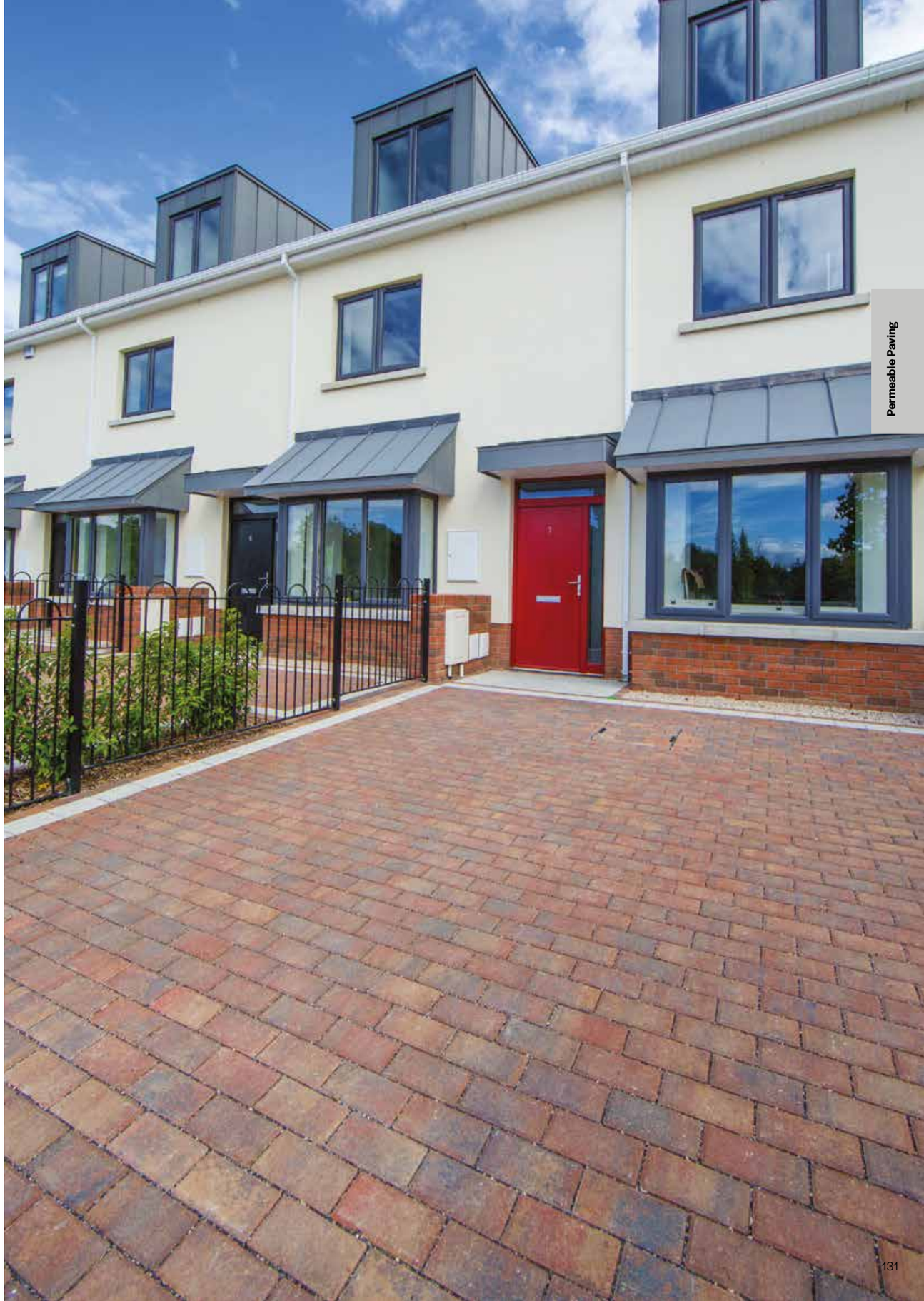
PrimeTop® Ef-Stop®

200 x 100mm

Sizes

60mm
80mm

Depths

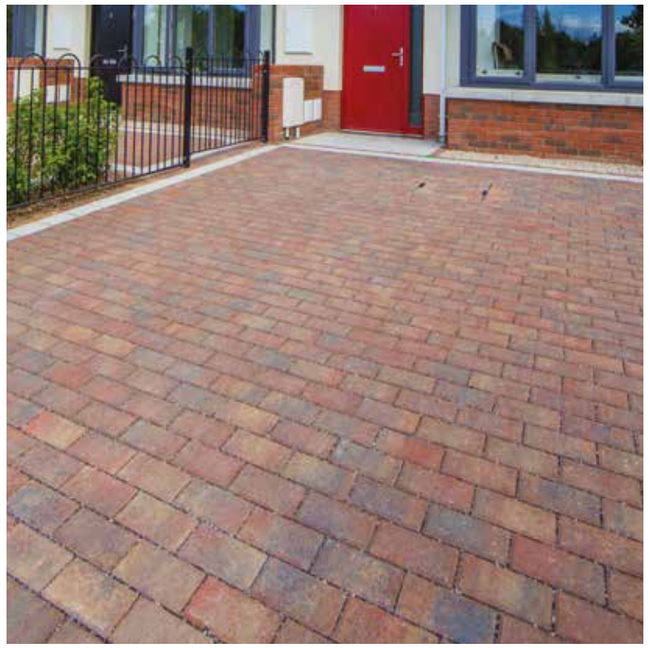


Hydropave Pedesta

S
Smooth
Finish

Pedestrian Use | Light Traffic | Commercial Traffic
Refer to relevant guidance in BS 7533

BIM Level 2



Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Block
Manufactured to	BS EN 1338:2003
Surface Layer	Hard-wearing surface layer with a minimum layer of 4mm and >350kgs/m³ cement
Surface Finish	Smooth
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Frost Protection	Yes
Drainage Void Width	5.5% to accommodate correct grit grading, reduce maintenance and maximise drainage flow rate
Strength	Typical tensile splitting strength of >3.6MPa
Slip/Skid risk	Extremely Low
Installed to	BS 7533-3:2005
NSS	**Plus** Q24 115 **Create** 45-20-64/400 **Plus** Q24 117 **Create** 45-20-64/400 **Plus** Q24 119 **Create** 45-20-64/400
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design and the most suitable product size for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 12%
Carbon Footprint	**60mm** 22kgCo²e/m² **80mm** 34kgCo²e/m²
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam **rating** www.**bre**.co.uk	**60mm:A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base. **80mm:B**, according to the Green Guide to Specification, 4th Edition 2009. **A**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Hydropave Pedesta BIM	200 x 100 x 60	Bracken, Brindle, Charcoal, Heather, Natural	YES	13.44	2.24	50	672	1808	1798
	200 x 100 x 80	Bracken, Brindle,Charcoal, Heather, Natural	YES	9.6	1.6	50	480	1732	1722

BIM - This product is available to download from our website in BIM Level 2 format.

Heather

Bracken

Brindle

Natural

Charcoal

Hydropave 240

Efficient, large format permeable block paving.

Hydropave 240 is an exceptionally versatile permeable block paving product. This classic looking paving comes in a choice of practical colours ideal for use in high volume locations.

- Functions as a SuDS paving system
- Superb hard-wearing smooth surface
- Vibrant long-lasting colours

PrimeTop® Ef-Stop®

240 x 120mm

Sizes

80mm

Depths

S Smooth

Finish

Pedestrian Use | Light Traffic | Commercial Traffic

Refer to relevant guidance in BS 7533

BIM Level 2

Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Block
Manufactured to	BS EN 1338:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >350kgs/m³ cement
Surface Finish	Smooth
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Frost Protection	Yes
Drainage Void Width	6% to accommodate correct grit grading, reduce maintenance and maximise drainage flow rate
Strength	Typical tensile splitting strength of >3.6MPa
Slip/Skid risk	Extremely Low
Installed to	BS 7533-3:2005
NSS	**Plus** Q24 115 **Create** 45-20-64/400 **Plus** Q24 117 **Create** 45-20-64/400 **Plus** Q24 119 **Create** 45-20-64/400
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 12%
Carbon Footprint	34kgCo²e/m²
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam **rating** www.**bre**.co.uk	**B**, according to the Green Guide to Specification, 4th Edition 2009. **A**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Hydropave 240 BIM	240 x 120 x 80	Bracken, Charcoal	YES	10.08	2.02	34.72	350	1810	1800
		Natural	MTO						

BIM - This product is available to download from our website in BIM Level 2 format.

Bracken

Charcoal

Natural

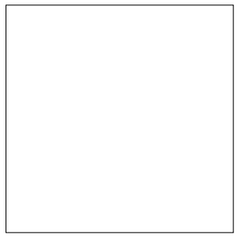
Hydropave Mayfair Flags

Granite finish permeable paving flags.

This modern permeable paving product is enhanced with granite aggregates, creating an elegant, contemporary finish. Hydropave Mayfair comes in three natural granite colours.

- Functions as a SuDS paving system
- Manufactured with natural granite aggregates
- Superb hard-wearing granite surface
- Vibrant long-lasting colours
- Creates a striking, contemporary look

PrimeTop® Ef-Stop®

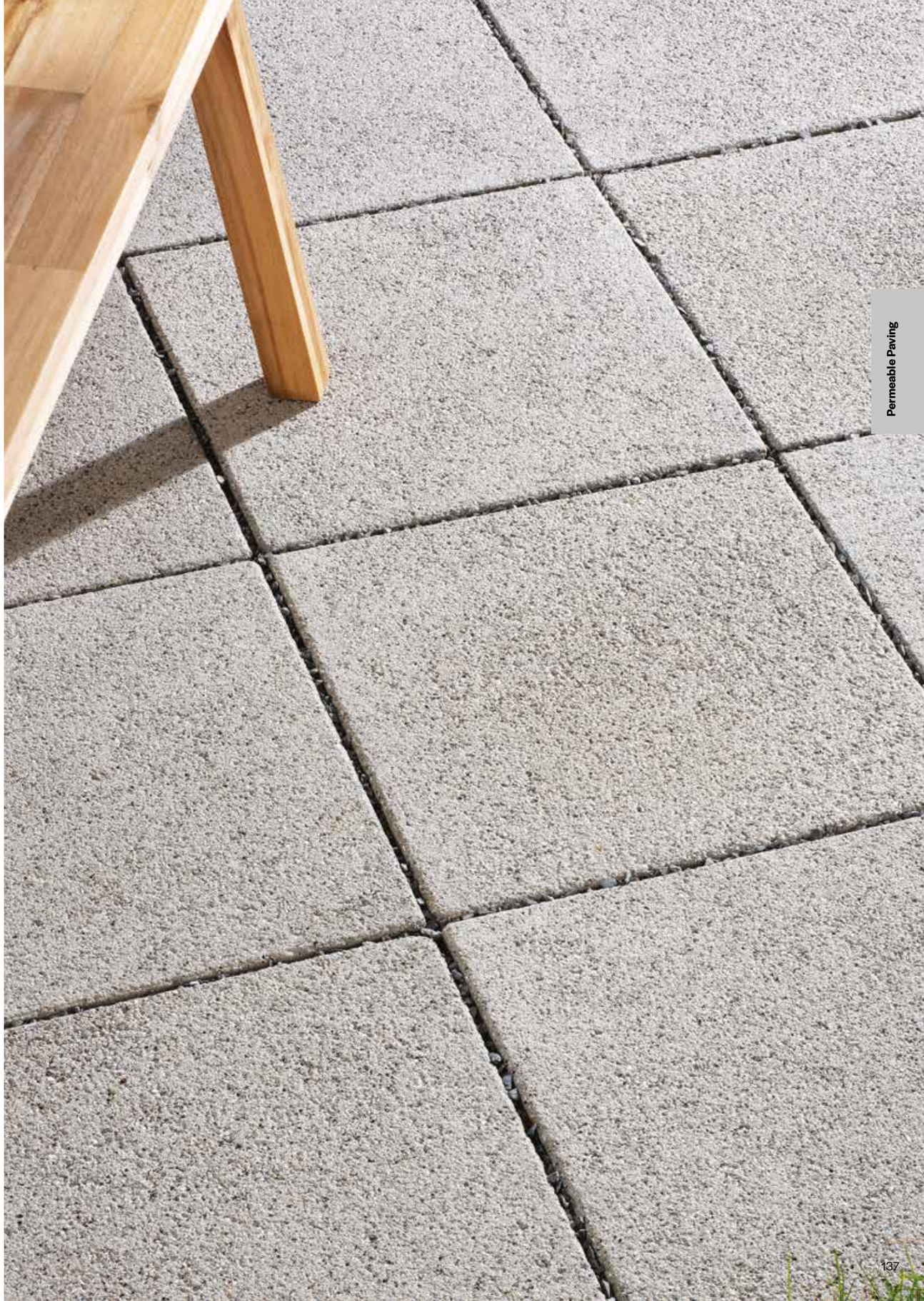


400 x 400mm

Sizes

65mm

Depths



Hydropave Mayfair Flags

TGA
Textured
Granite Aggregate

Finish

Pedestrian Use | Light Traffic | Commercial Traffic

Refer to relevant guidance in BS 7533

Specification

PrimeTop® Ef-Stop®

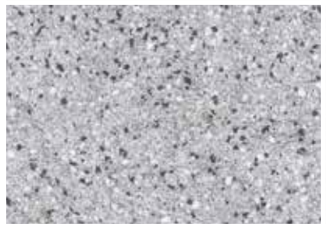
Product type	Concrete Paving Flag
Manufactured to	BS EN 1339:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >390kgs/m³ cement
Granite Content	Not less than 57% of granite aggregate in surface layer for Graphite, Mid Grey & Silver
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Frost Protection	Yes
Drainage Void Width	2.7% to accommodate correct grit grading, reduce maintenance and maximise drainage flow rate
Strength	Typical tensile splitting strength of >5MPa (Class 3)
Slip/Skid risk	Extremely Low
Installed to	Specific installation instructions are available from Tobermore
NSR	**Plus** Q25 315 **Create** 45-20-64/395
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 6%
Carbon Footprint	24kgCo²e/m²
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam **rating** www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	finish	edge	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Hydropave Mayfair Flags	400 x 400 x 65	Granite Textured	Chamfered	Graphite, Mid Grey, Silver	SO	10.56	3.52	6.25	66	1556	1546

Silver



Mid Grey

Graphite

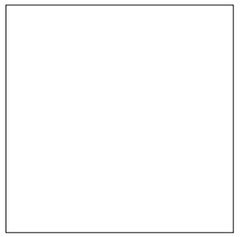
Hydropave Textured Flags

Permeable paving flags with a modern textured surface.

Hydropave Textured Flags provide a practical modern design with an attractive textured surface in a choice of neutral tones.

- Functions as a SuDS paving system
- Superb hard-wearing textured surface
- Vibrant long-lasting colours
- Natural appearance

PrimeTop® Ef-Stop®



400 x 400mm

Sizes

65mm

Depths

T
Textured

Finish

Pedestrian Use | Light Traffic | Commercial Traffic

Refer to relevant guidance in BS 7533

Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Flag
Manufactured to	BS EN 1339:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >390kgs/m^3 cement
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Frost Protection	YES
Drainage Void Width	2.7% to accommodate correct grit grading, reduce maintenance and maximise drainage flow rate
Strength	Typical tensile splitting strength of >5MPa (Class 3)
Slip/Skid risk	Extremely Low
Installed to	Specific installation instructions are available from Tobermore
NSS	**Plus** Q25 315 **Create** 45-20-64/395
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 6%
Carbon Footprint	28kgCo^{2}e/m^2
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam **rating** www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	finish	edge	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Hydropave Textured Flags	400 x 400 x 65	Textured	Chamfered	Charcoal, Natural	SO	10.56	3.52	6.25	66	1556	1546

Charcoal

Natural

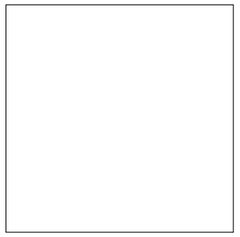
Hydropave Standard Flags

Non-slip Affordable Permeable Paving.

Hydropave Standard Flags are a permeable paving solution designed with versatility in mind. Available in two attractive shades of grey.

- Functions as a SuDS paving system
- Superb hard-wearing textured surface
- Vibrant long-lasting colours
- Natural appearance

PrimeTop® Ef-Stop®



400 x 400mm

Sizes

65mm

Depths

NSS
Non-Slip Smooth
Finish

Pedestrian Use | Light Traffic | Commercial Traffic

Refer to relevant guidance in BS 7533

Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Flag
Manufactured to	BS EN 1339:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >390kgs/m³ cement
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Frost Protection	Yes
Drainage Void Width	2.7% to accommodate correct grit grading, reduce maintenance and maximise drainage flow rate
Strength	Typical tensile splitting strength of >5MPa (Class 3)
Slip/Skid risk	Extremely Low
Installed to	Specific installation instructions are available from Tobermore
NSS	**Plus** Q25 315 **Create** 45-20-64/395
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 6%
Carbon Footprint	28kgCo²e/m²
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	finish	edge	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Hydropave Standard Flags	400 x 400 x 65	Non-Slip Smooth	Chamfered	Charcoal, Natural	SO	10.56	3.52	6.25	66	1556	1546

Charcoal

Natural

Technical Information

Important Information
Any technical information provided by Tobermore in relation to any product (whether before or after order) is provided by way of GUIDANCE ONLY and, to the fullest extent permitted by law, without liability on the part of Tobermore for any loss or damage suffered as a result of relying upon it.

Such technical information should not be relied upon in substitution for obtaining independent expert advice prior to using any product from both a suitably qualified engineer and building contractor, in particular, as to the suitability of the product for use at the intended site for the intended scheme.

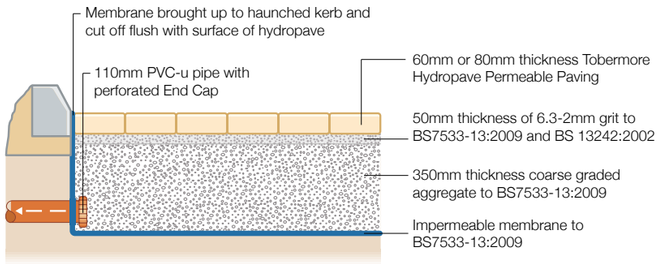
BS 7533-3:2005	Pavements constructed with clay, natural stone or concrete pavers. Code of practice for laying precast concrete paving blocks and clay pavers for flexible pavements.
BS 7533-13:2009	Pavements constructed with clay, natural stone or concrete pavers. Guide for the design of permeable pavements constructed with concrete paving blocks and flags, natural stone slabs and setts and clay pavers.

What types of systems are available?
There are two common types of permeable paving systems; Attenuation and Infiltration.

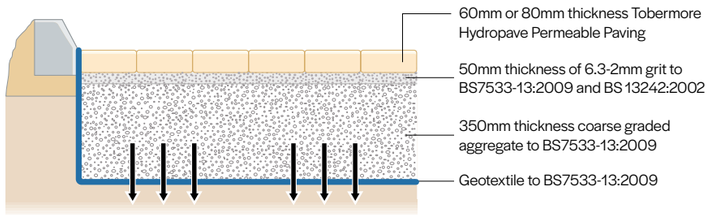
The Infiltration system allows the water to flow slowly through the crushed stone beneath the paving before being slowly released back into the ground through a geotextile.

What system should I use?
Tobermore can introduce you to specialist engineers, who can provide design advice for your permeable paving project.

Typical Attenuation System



Typical Infiltration System



What are the key components of a permeable paving system?
The key components of the system are:
- Paving blocks & jointing grit
- Bedding layer
- Sub-base

As long as the system has been adequately designed for the site the most important next step is to get these components right.

* In particular, the material should be categorised as LA30, FI20 and MDE20 according to table A.3 within this standard. The grit should be insoluble in dilute hydrochloric acid and should be naturally occurring material.

** You must ensure the grit and coarse graded aggregate are compatible. For example, if you use a finer grit it may percolate into the sub-base and may destabilise the pavement. Please refer to the following source of information – BS7533-13:2009 Pavements constructed with clay, natural stone or concrete pavers. Guide for the structural design of permeable pavements.

Paving blocks & jointing grit	Tobermore have a wide range of Hydropave blocks and flags available. The permeability of the joints greatly exceeds UK rainfall requirements. The blocks and flags are jointed using a 6.3-2mm grit to BS EN 7533-13:2009*	
Bedding layer	The blocks are bedded on a 6.3mm-2mm grit to BS EN 7533-13:2009*	
Sub-base	A clean 4/20mm coarse graded aggregate** to BS EN 13242:2002 must be used for this component. A crushed rock angular stone works best.	

DESIGN

How do I design a permeable paving system?
Refer to the following source of information:
- BS7533-13:2009 Pavements constructed with clay, natural stone or concrete pavers. Guide for the structural design of permeable pavements.

Tobermore can provide design assistance. Please contact us for details.

Upper geotextile
An upper geotextile may be used between the sub-base and the bedding layer. Please refer to BS7533-13:2009 for further information.

What if the ground is poor or there will be significant vehicles on the paving?
Various improvement layers can be installed below the permeable paving to ensure the system can meet the structural load on the project. The engineer on the project will design these into it based on the loading category required.

The two most common types of improvement layers are **Dense Bitumen Macadam (DBM) and Cement Stabilised Coarse Graded Aggregate (CSCGA).**

Specifications for Dense Bitumen Macadam and Cement Stabilised Coarse Graded Aggregate can be found in BS 7533-13:2009. Method statements on how to install these layers can be supplied on request.

What is the ratio required of permeable area (Hydropave) to impermeable areas (roads, roofs etc)?
Sometimes, water from building roofs or nearby impermeable areas is fed into permeable paving. It is best to do this only in the case of attenuation systems when a typical ratio of 2:1 can be used between impermeable and permeable zones.

Note
A permeable paving design relies heavily on using the correct aggregates. Prior to installation, we would ask you to test both the 4/20mm coarse graded aggregate and also the 6.3-2mm bedding and jointing grit as per the relevant British Standard specification (BS EN 13242:2002). In particular, the material should be categorised as LA20 according to Table 9, SZ18 according to Table 10 and MDE15 according to Table 11 within this standard. The grit should be insoluble in dilute hydrochloric acid and should be naturally occurring material. In our experience, incorrect use of aggregates is one of the most common reasons for failure of a permeable paving system.

INSTALLATION

How to install a permeable paving system
Please refer to the following sources of information - BS 7533-3:2005 Pavements constructed with clay, natural stone or concrete pavers. Part 3: Code of practice for laying precast concrete paving blocks and clay pavers for flexible pavements.

Sub-base: 4/20mm aggregate
After putting the required depth of stone in position, it needs to be re-orientated using either a tandem roller or a plate vibrator.

Bedding layer: 6.3-2mm laying course material
The bedding layer should be screeded over the 4/20mm.

Paving blocks
When the blocks are placed to the chosen pattern they should be plate vibrated, before the 6.3-2mm grit is brushed into the joints until they are completely filled.

Joint filling
All joints must be filled to the top with 6.3-2mm grit. Joints which are not fully filled can lead to possible movement of the blocks after use. We recommend that after a few weeks use that any joints, which have settled and are not full, are topped up with grit. Joints should be kept filled at all times. You will need approximately 1 ton of grit for every 100m^2 of 80mm paving.

Note
Care should be taken that the permeable joints do not become contaminated as work on the scheme is completed. Special care needs to be taken when soft landscaping is carried out so that soil does not enter the joints. When this type of work is being carried out, the surface of the permeable paving should be protected by an appropriate cover to protect the joints from being contaminated.

Adverse weather
Due to the superior drainage capabilities of Hydropave it is possible to install the product in more adverse weather conditions compared to standard paving.

MAINTENANCE

Please refer to Tobermore's detailed 'Permeable Paving Maintenance Guidelines' available on our website: www.tobermore.co.uk

Instructions and warnings
Refer to page 289

Catalogue of Designs

The following common designs are intended solely for use at scheme appraisal stage and should not be relied upon in substitution for obtaining a permeable paving design that has been prepared by a suitably qualified engineer specifically for the scheme.

Note
In the case of attenuation designs, subgrade CBR values are equilibrium moisture content values.

In the case of infiltration designs, subgrade CBR values are soaked values.

Capping thickness may need to be adjusted upwards to achieve a firm working platform which can sustain loads from construction traffic without deforming excessively and which can offer sufficient reaction to allow the overlying materials to be fully compacted.

All pavements must meet the requirements of BS7533 Part 3 in terms of installation.

The thicknesses of coarse graded aggregate will be suitable for the traffic conditions shown and in the case of attenuation designs should be sufficiently thick to meet the attenuation requirements. However, a site specific hydraulic analysis should be carried out using the method set out in the Interpave Guidelines. In the case of infiltration designs, there is usually no need to check hydraulic capacity but a check must be made on the infiltration capacity of the ground. (The ground must be proven to accept sufficient water which will have to be scaled up if the pavement is infiltrating water draining towards it from impermeable paving or from downpipes.)

Where traffic weights exceed those commonly encountered on public highways, specialised design advice should be sought.

Where light vans are included, their maximum capacity is 15kN (300cwt).

Loading Categories

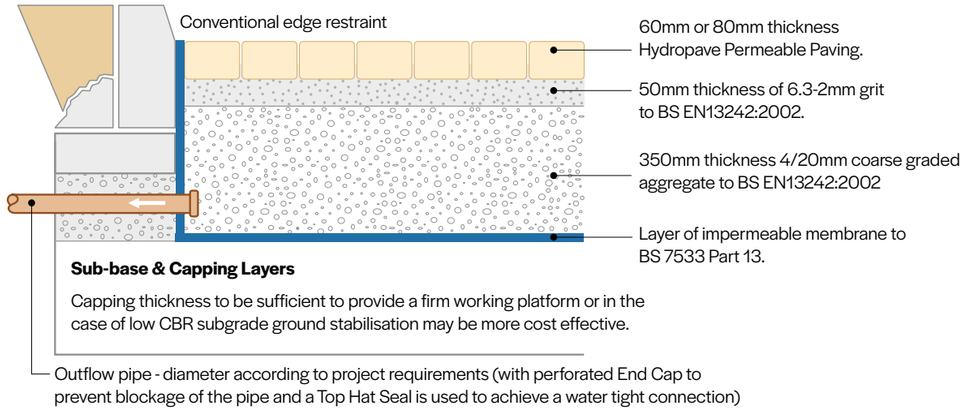
Category/ Application	No. of standard axles	Traffic Guide	Application
A/Domestic	0	No Large HGV	▪ Patio ▪ Private Drives ▪ Decorative Features ▪ Enclosed Playgrounds ▪ Footways with Zero overrun
B/Car Parking	100	Emergency vehicles only	▪ Car parking bays and aisles ▪ Railway station platforms ▪ External car showrooms ▪ Sports stadium pedestrian routes ▪ Footways with occasional overrun ▪ Private drives ▪ Footway crossover
C/Pedestrian	0.015msa	Large HGV/week	▪ Town/City pedestrian street ▪ Nursery access ▪ Parking areas to residential development ▪ Motel parking ▪ Garden centre external displays ▪ Cemetery/Crematorium ▪ Airport car park (no bus pick-up) ▪ Sports centre
D/Shopping	0.15msa	10 large HGV/week	▪ Retail development delivery access route ▪ School/college access route ▪ Office block delivery route ▪ Garden centre delivery route ▪ Deliveries to small residential development ▪ Fire station yard ▪ Airport car park with bus to terminal ▪ Sports stadium access route/forecourt
E/Commercial	1.5msa	100 large HGV/week	▪ Industrial premises ▪ Lightly trafficked public roads ▪ Light industrial development ▪ Mixed retail/industrial development ▪ Town Square ▪ Footway with regular overrun ▪ Airport landslide
F/Heavy traffic	15msa	1000 large HGV/week	▪ Main road ▪ Distribution centre ▪ Bus station (bus every 5 minutes) ▪ Roundabout ▪ Bus lane

Sub-base & Capping Layers
Capping thickness to be sufficient to provide a firm working platform or in the case of low CBR subgrades ground stabilisation may be more cost effective. If CBR is 5% or greater then capping layers are not required.

It is advised that all sites need independent inspection and assessment by a suitably qualified engineer prior to project commencement.

Attenuation designs

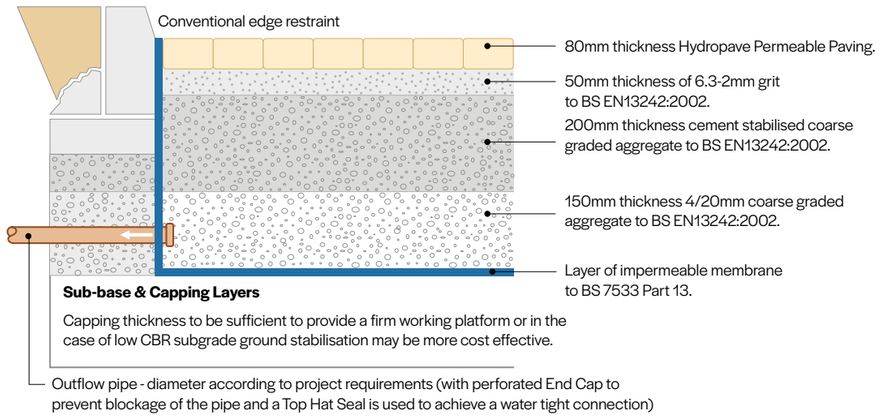
LOADING CATEGORY B: 1-5%CBR



The design sections shown should be checked and cross referenced by a qualified engineer against BS7533 Part 13. Other design examples are available on request or by visiting the Hydropave section on our website.

An upper geotextile is optional on this design.

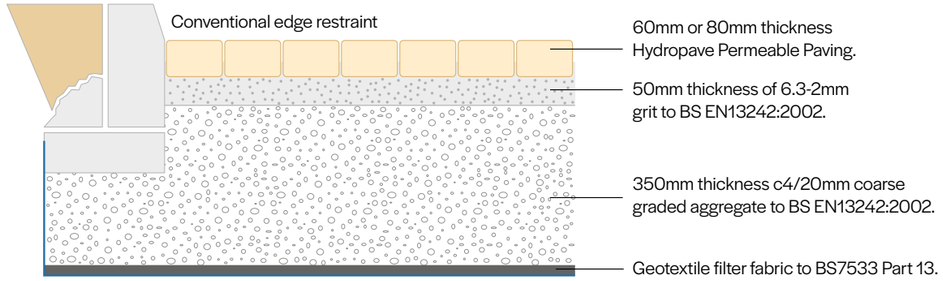
LOADING CATEGORY E: 1-5%CBR



Catalogue of Designs

Infiltration designs

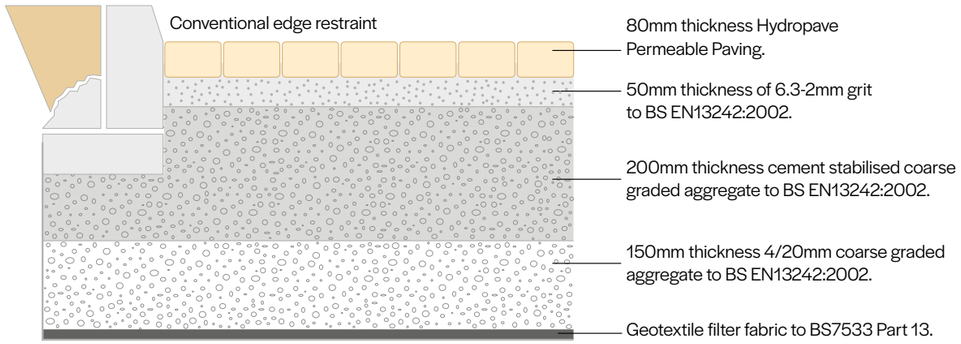
LOADING CATEGORY B: 5%CBR



The design sections shown should be checked and cross referenced by a qualified engineer against BS7533 Part 13. Other design examples are available on request or by visiting the Hydropave section on our website.

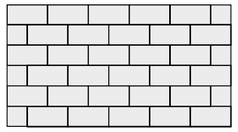
An upper geotextile is optional on this design.

LOADING CATEGORY E: 5%CBR

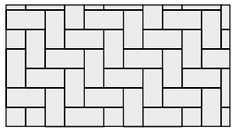


Laying Patterns

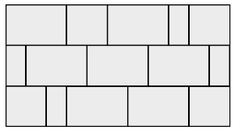
HYDROPAVE FUSION



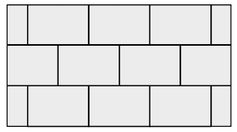
Stretcher bond
200x100mm



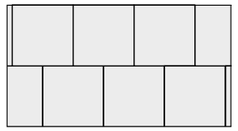
Herringbone 90˚
200x100mm



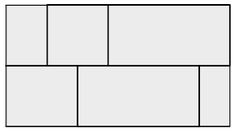
Stretcher bond, random pattern
300x200mm, 200x200mm, 200x100mm



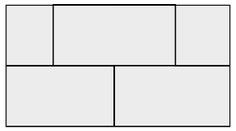
Stretcher bond
300x200mm



Stretcher bond
300x300mm

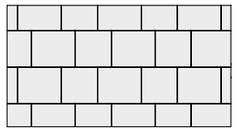


Stretcher bond, random pattern
600x300mm, 300x300mm, 300x200mm



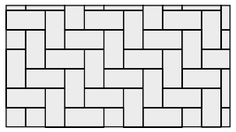
Stretcher bond
600x300mm

HYDROPAVE SIENNA DUO



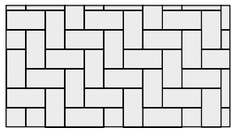
Stretcher bond
208x173mm, 173x173mm

HYDROPAVE 240



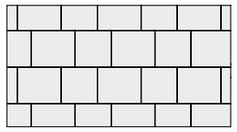
Herringbone 90˚
240x120mm

HYDROPAVE TEGULA 240



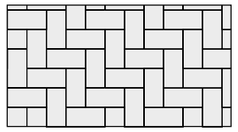
Herringbone 90˚
240x120mm

HYDROPAVE TEGULA DUO



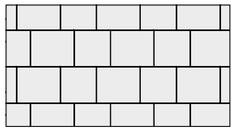
Stretcher bond
208x173mm, 173x173mm

HYDROPAVE PEDESTA



Herringbone 90˚
200x100mm

HYDROPAVE SHANNON DUO



Stretcher bond
208x173mm, 173x173mm

Note: The above displays a selection of example patterns using Hydropave Fusion sizes

Paving Flags

Product Range

Braemar Flags 152

Mayfair Flags 156

Historic Flags & Circles 160

Anglesey Flags 164

Beaufort Flags 166

Textured Flags 168

Kensington Flags 172

Riven Flags 174

Standard Flags 178

Tactile Flags 182

Technical Information 186

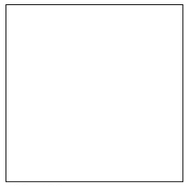
Laying Patterns 187

Braemar Flags

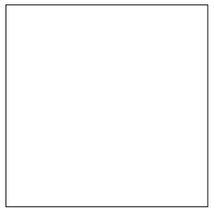
High performance paving with the aesthetic appeal of natural stone.

- Premium flag
- Diamond ground in two finish options
- Manufactured with natural granite aggregates
- Superb hard-wearing granite surface
- Vibrant long-lasting colours
- Creates a striking, contemporary look
- Readily available with much shorter lead times than natural stone
- Cost effective alternative to natural stone

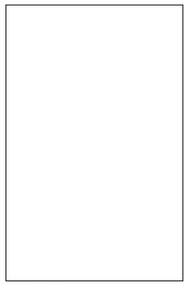
PrimeTop® Ef-Stop®



400 x 400mm



450 x 450mm



600 x 400mm

Sizes

50mm

Depths

Surface solutions for all applications
Braemar's advanced PrimeTop construction and wide palette of natural granite aggregates provides a modern solution for use in projects requiring a superior paving solution. Each Braemar block or slab is individually finished through a diamond tipped grinding process to create the aesthetic appeal of natural stone. The range is available in two different finishes.

Ground
Braemar's Ground finish creates an attractive, smooth effect, similar to honed granite which highlights the colouring in the natural granite aggregates.

Ground Textured
Braemar's Ground Textured finish creates an effect similar to hammered granite, with distinctive granite highlights on the surface of the paving.

Braemar Flags

GT	G					
Ground Textured	Ground	Steps	AirClean	Pedestrian Use	Light Traffic	BIM Level 2
Finish		Also available as		Refer to relevant guidance in BS 7533		

Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Flag
Manufactured to	BS EN 1339:2003
Granite content	Not less than 63.3% of granite aggregate in surface layer for Alto Silver; Not less than 51.3% of granite aggregate in surface layer for Jura Grey; Not less than 27.3% of granite aggregate in surface layer for Cara Slate.
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >390kgs/m^3 cement
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >5MPa (Class 3)
Slip/Skid risk	Low
Installed to (Externally)	BS 7533-4:2006
(Internally)	Details available on request
NSS	**Plus** Q25 315 **Create** 45-20-64/395
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design and the most suitable product size for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 6%
Carbon Footprint	22kgCo^{2}e/m^2
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base.

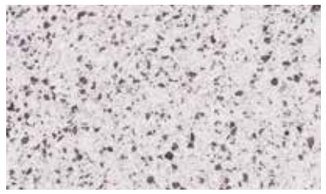
Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

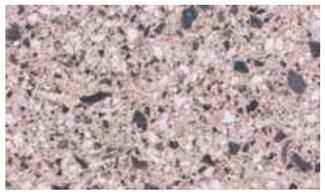
product	size (mm)	edge	colours available	in stock	m² per pack	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Braemar Ground & Braemar Ground Textured BIM	600 x 400 x 50	Chamfered	Alto Silver, Jura Grey, Cara Slate	YES	4.8	4.16	20	589	584
	450 x 450 x 50	Chamfered	Alto Silver, Jura Grey, Cara Slate	YES	4.05	4.94	20	474	470
	400 x 400 x 50	Chamfered	Alto Silver, Jura Grey, Cara Slate	YES	3.2	6.25	20	397	394

BIM - This product is available to download from our website in BIM Level 2 format.

Alto Silver



Jura Grey



Cara Slate

IMPORTANT INFORMATION

A regular maintenance programme should always be established and active for all public spaces to reduce the risk of slip/skid. Tobermore's stunning ground and ground textured finishes are created using a modern diamond grinding process which achieves a premium finish. Ground textured provides a higher level of slip resistance.

Tobermore recommend that you separate product groups using contrasting bands of colour as each product is manufactured separately and may have slight variations in colour.

Light coloured flags emphasise tyre marks and oil spills. It must be accepted that these products will need more maintenance if the overall appearance is to be maintained.

Mayfair Flags

Natural granite aggregate paving.

Mayfair flags have a sophisticated, modern feel. Manufactured with natural granite aggregates, Mayfair flags have a hard-wearing, durable surface and come in five natural colours.

- Manufactured with natural granite aggregates
- Superb hard-wearing granite surface
- Vibrant long-lasting colours
- Creates a striking, contemporary look

PrimeTop® Ef-Stop® EasyClean

600 x 600mm

600 x 400mm

450 x 450mm

400 x 400mm

Sizes

70mm
65mm
50mm
40mm
35mm

Depths

Tobermore

Mayfair Flags

Now available with EasyClean

A selection of Mayfair flags is available with Tobermore's integrated EasyClean technology for use in domestic applications. See our website for more information.

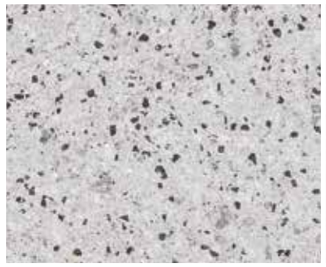
TGA Textured Granite Aggregate — Finish

Steps, AirClean — Also available as

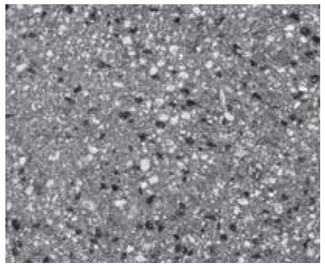
Pedestrian Use, Light Traffic, Commercial Traffic — Refer to relevant guidance in BS 7533

BIM Level 2

Silver

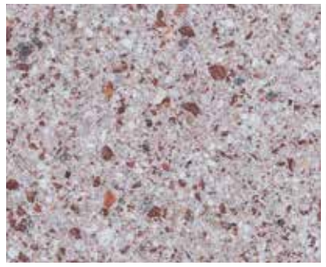


Graphite

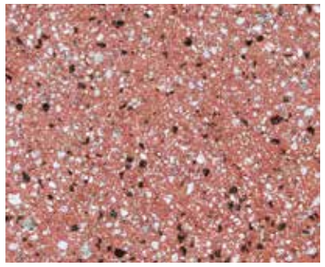


Sandstone

Rose



Russet



Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Flag
Manufactured to	BS EN 1339:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >390kgs/m^3 cement
Granite content	Not less than 57% of granite aggregate in surface layer for Silver, Graphite and Russet; Not less than 46% of granite aggregate in surface layer for Sandstone; Not less than 32% of granite aggregate in surface layer for Rose
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	**Less than 50mm deep** Typical tensile splitting strength of >3.5MPa **50mm or greater** Typical tensile splitting strength of >5MPa (Class 3)
Slip/Skid risk	Extremely Low
Installed to	BS 7533-4:2006
NSS	**Plus** Q25 315 **Create** 45-20-64/395
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design and the most suitable product size for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 6%

Carbon Footprint

	35mm	40mm	50mm	65mm	70mm
Silver	14*	16*	19*	24*	30*
Sandstone	15*	17*	22*		
Graphite	15*	17*	24*	30*	32*
Russet		17*	22*		
Rose		17*	22*		

Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	finish	edge	colours available	in stock	no. per m²	no. per pack	no. per pallet	weight kg per pack GB	weight kg per pack NI/ROI
Mayfair Flags BIM	600 x 600 x 50	Granite Textured	Chamfered	Graphite, Sandstone, Silver	YES	2.78	20	20	859	851
	450 x 450 x 50	Granite Textured	Chamfered	Graphite, Sandstone, Silver	YES	4.16	20	40	589	584
				Rose, Russet	SO					
	450 x 450 x 70	Granite Textured	Chamfered	Graphite, Silver	YES	4.94	15	60	512	508
	450 x 450 x 50	Granite Textured	Chamfered	Graphite, Sandstone, Silver	YES	4.94	20	80	470	466
	450 x 450 x 35	Granite Textured	Chamfered	Graphite, Sandstone, Silver	YES	4.94	30	120	529	525
	400 x 400 x 40	Granite Textured	Chamfered	Graphite, Sandstone, Silver, Rose, Russet	YES	6.25	25	100	384	382
	400 x 400 x 65	Granite Textured	Chamfered	Graphite, Silver	YES	6.25	16	64	395	392

BIM - This product is available to download from our website in BIM Level 2 format.

Historic Flags & Circles

Riven stone effect.

Historic Flags, with a neutral, slate-like finish, contain a subtle blend of natural tones and colours. These paving flags complement both modern and period properties.

- Provides the look and feel of traditional natural stone
- Superb hard-wearing surface
- Vibrant long-lasting colours
- Features beautiful fettled edges and a riven face
- Available in a mixed size pack
- Allows fast installation
- An inspiring focal point can be created with a Historic Circle

PrimeTop® Ef-Stop®

600 x 450mm

600 x 300mm

450 x 450mm

450 x 300mm

300 x 300mm

Mixed Length Sizes
All sizes in one pack

50mm

Depths

Historic Flags & Circles

R
Riven
Finish

Pedestrian
Use
Refer to relevant guidance in BS 7533

BIM
Level 2

Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Flag
Manufactured to	BS EN 1339:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >350kgs/m^3 cement
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >5MPa (Class 3)
Slip/Skid risk	Extremely Low
Installed to	BS 7533-4:2006
NSS	**Plus** Q25 315 **Create** 45-20-64/395
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 12%
Carbon Footprint	18kgCo^{2}e/m^2
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	finish	edge	colours available	in stock	no. per m²	m² per slice	no. per pack	no. per pallet	weight kg per pack GB	weight kg per pack NI/ROI
Historic Flags (all sizes in one pack) **BIM**	600 x 450 x 50 600 x 300 x 50 450 x 450 x 50 450 x 300 x 50 300 x 300 x 50	Riven	Fettled	Bracken, Harvest Gold, Heather, Slate	YES	14.04	1.08	13 13 26 13 13	78	1596	1596
Historic Circle	50mm x 2.24m diameter	Riven	Fettled	Bracken, Harvest Gold, Heather, Slate	YES	3.94	-	25		455	455

BIM - This product is available to download from our website in BIM Level 2 format.

Slate

Harvest Gold

Bracken

Heather

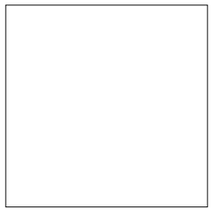
Anglesey Flags

Diamond ground smooth paving.

Anglesey Flags are a cost-effective alternative to natural stone. This versatile product is manufactured with a diamond ground smooth finish in two soft, natural colours.

- Vibrant long-lasting colours
- Hard-wearing surface layer
- Cost effective alternative to natural stone

PrimeTop® Ef-Stop®



450 x 450mm

Sizes

50mm

Depths

G
Ground

Finish

Pedestrian Use | Light Traffic

Refer to relevant guidance in BS 7533

BIM Level 2

Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Flag
Manufactured to	BS EN 1339:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >390kgs/m^3 cement
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >5MPa (Class 3)
Slip/Skid risk	Low
Installed to	BS 7533-4:2006
NSS	**Plus** Q25 315 **Create** 45-20 64/395
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 5%
Carbon Footprint	22kgCo^{2}e/m^2
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

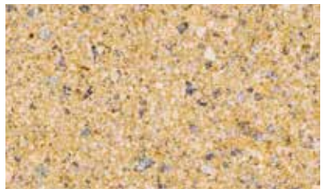
Stock

product	size (mm)	finish	edge	colours available	in stock	no. per m²	no. per pack	no. per pallet	weight kg per pack GB	weight kg per pack NI/ROI
Anglesey Flags BIM	450 x 450 x 50	Ground	Chamfered	Buff, Natural	YES	4.94	20	80	470	470

BIM - This product is available to download from our website in BIM Level 2 format.

Natural

Buff



IMPORTANT SLIP/SKID INFORMATION

A regular maintenance programme should always be established and active for all public spaces to reduce the risk of slip/skid. Tobermore's stunning ground and ground textured finishes are created using a modern diamond grinding process which achieves a premium finish. Ground textured provides a higher level of slip resistance.

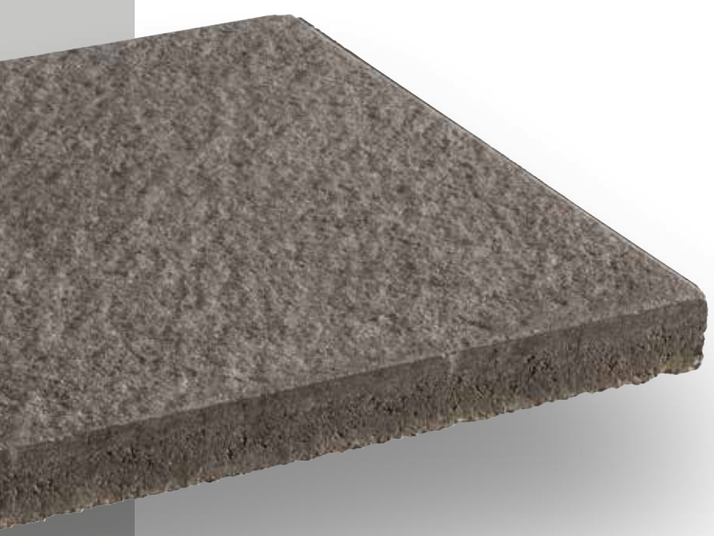
Beaufort Flags

Natural contoured appearance.

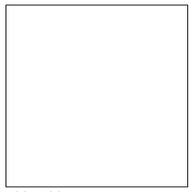
Beaufort Flags are inspired by the timeless appeal of natural stone. Manufactured with a contoured surface, lightly embossed and finished with a subtle sparkle, Beaufort Flags are available in a range of natural, muted colours.

- Superb hard-wearing surface
- Natural, muted colour range
- Resembles the aesthetics of natural stone
- Contemporary appearance

PrimeTop® Ef-Stop® EasyClean



600 x 400mm



400 x 400mm

Sizes

40mm

Depths

C
Contoured

Finish

Pedestrian Use

Refer to relevant guidance in BS 7533

Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Flag
Manufactured to	BS EN 1339:2003
Granite Content	Not less than 60% of granite aggregate in surface layer for Charcoal; Not less than 73% of granite aggregate in surface layer for Natural; Not less than 44% of granite aggregate in surface layer for Buff.
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >390kgs/m^3 cement
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile strength of > 3.5MPa
Slip/Skid risk	Extremely Low
Installed to	BS 7533-4:2006
NSS	**Plus** Q25 315 **Create** 45-20-64/395
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design and the most suitable product size for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 5%
Carbon Footprint	**600x400x40mm** 17kgCo^{2}e/m^2 **400x400x40mm** 18kgCo^{2}e/m^2
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	finish	edge	colours available	in stock	no. per m²	no. per pack	no. per pallet	weight kg per pack GB	weight kg per pack NI/ROI
Beaufort Flags	600 x 400 x 40	Contoured	Chamfered	Buff, Charcoal, Natural	YES	4.16	25	100	569	560
	400 x 400 x 40	Contoured	Chamfered	Buff, Charcoal, Natural	YES	6.25	25	100	403	400

Natural

Charcoal

Buff

Textured Flags

Stylish granular surface.

Textured Flags have a modern and natural look that blends beautifully with a variety of other products. Manufactured with a hard-wearing granular surface, these flags are both stylish and hard-wearing.

- Superb hard-wearing textured surface
- Vibrant long-lasting colours
- Natural appearance

PrimeTop® Ef-Stop®

600 x 600mm

450 x 450mm

400 x 400mm

Sizes

35mm
40mm
50mm
65mm
70mm

Depths

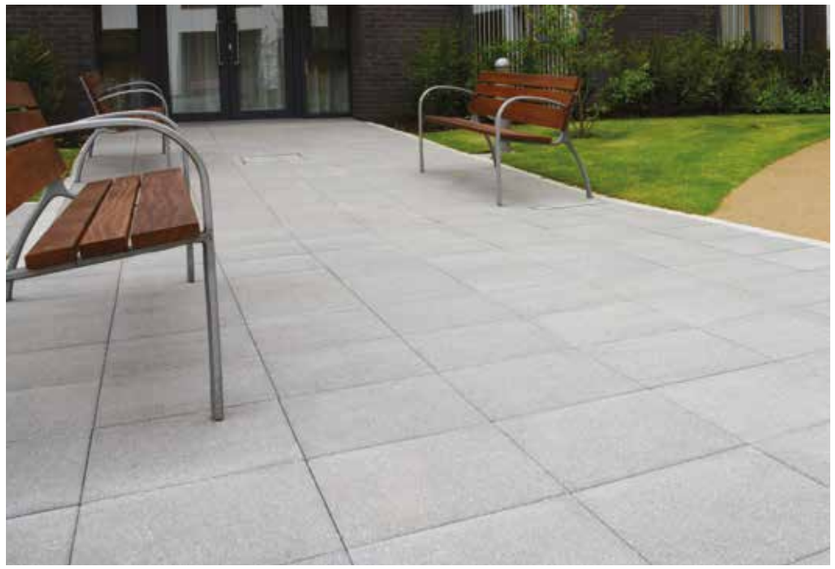
Textured Flags

T	PT
Textured	Patio Textured
Finish	

Permeable | Steps
Also available as

Pedestrian Use | Light Traffic | Commercial Traffic
Refer to relevant guidance in BS 7533

BIM Level 2



Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Flag
Manufactured to	BS EN 1339:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >390kgs/m^2 cement
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	**Less than 50mm deep** Typical tensile splitting strength of >3.5MPa **50mm or greater** Typical tensile splitting strength of >5MPa (Class 3)
Slip/Skid risk	Extremely Low
Installed to	BS 7533-4:2006
NSR	**Plus** Q25 315 **Create** 45-20-64/395
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design and the most suitable product size for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 5%
Carbon Footprint	**600x600x50mm** 22kgCo^{2}e/m^2 **600x600x40mm** 16kgCo^{2}e/m^2 **450x450x70mm** 30kgCo^{2}e/m^2 (Buff: 32kgCo2e/m^2) **450x450x50mm** 22kgCo^{2}e/m^2 **450x450x35mm** 15kgCo^{2}e/m^2 (Buff: 16kgCo2e/m^2) **400x400x65mm** 28kgCo^{2}e/m^2 **400x400x50mm** 22kgCo^{2}e/m^2 **400x400x40mm** 19kgCo^{2}e/m^2
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam **rating** www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	finish	edge	colours available	in stock	no. per m^2	no. per pack	no. per pallet	weight kg per pack GB	weight kg per pack NI/ROI
Textured Flags BIM	600 x 600 x 50	Patio Textured	Chamfered	Buff, Charcoal, Golden, Natural	YES	2.78	20	20	850	842
	600 x 600 x 40	Patio Textured	Chamfered	Buff, Charcoal, Golden, Natural, Red	YES	2.78	24	24	848	840
	450 x 450 x 70	Textured	Chamfered	Natural	YES	4.94	15	60	512	508
	450 x 450 x 50	Textured	Chamfered	Buff, Charcoal, Natural	YES	4.94	20	80	474	470
	450 x 450 x 35	Textured	Chamfered	Buff, Charcoal, Natural	YES	4.94	30	120	521	517
	400 x 400 x 65	Textured	Chamfered	Buff, Charcoal, Natural	YES	6.25	16	64	400	398
	400 x 400 x 50	Textured	Chamfered	Buff, Charcoal, Natural	YES	6.25	20	80	397	394
	400 x 400 x 40	Textured	Chamfered	Buff, Charcoal, Golden, Natural, Red	YES	6.25	25	100	403	400

BIM - This product is available to download from our website in BIM Level 2 format.

Natural

Charcoal

Red

Buff

Golden

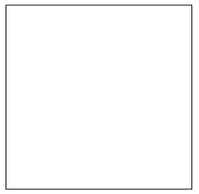
Kensington Flags

Marbled effect paving.

The elegant Kensington paving flag is designed with a smooth finish and marbled appearance, creating a distinctive look.

- Superb hard-wearing smooth surface
- Showcases an attractive marbling effect
- Natural appearance

PrimeTop® Ef-Stop®



400 x 400mm

Sizes

40mm

Depths

T
Textured

Finish

Pedestrian Use

Refer to relevant guidance in BS 7533

Specification

Product type	Concrete Paving Flag
Manufactured to	BS EN 1339:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >390kgs/m^3 cement
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile strength of > 3.5MPa
Slip/Skid risk	Extremely Low
Installed to	BS 7533-4:2006
NBS	**Plus** Q25 315 **Create** 45-20-64/395
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 6%
Carbon Footprint	19kgCo2e/m^2
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	finish	edge	colours available	in stock	no. per m²	no. per pack	no. per pallet	weight kg per pack GB	weight kg per pack NI/ROI
Kensington Flags	400 x 400 x 40	Textured	Chamfered	Black/White	YES	6.25	25	100	403	400

Black/White

Riven Flags

Rugged riven texture.

Riven Flags are engineered with a natural, rugged feel, emulating natural stone. Riven Flags are the ideal paving flags for creating a rustic look.

- Superb hard-wearing riven surface
- Vibrant long-lasting colours
- Resembles the rugged appearance of natural stone

PrimeTop® Ef-Stop®

600 x 600mm

450 x 450mm

400 x 400mm

Sizes

35mm
38mm
40mm

Depths

Riven Flags

R
Riven

Finish

Pedestrian Use

Refer to relevant guidance in BS 7533

Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Flag
Manufactured to	BS EN 1339:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >390kgs/m^3 cement
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile strength of > 3.5MPa
Slip/Skid risk	Extremely Low
Installed to	BS 7533-4:2006
NSS	**Plus** Q25 315 **Create** 45-20-64/395
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design and the most suitable product size for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 5%
Carbon Footprint	**600x600x38mm** 16kgCo^{2}e/m^2 **450x450x35mm** 16kgCo^{2}e/m^2 **400x400x40mm** 18kgCo^{2}e/m^2
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	finish	edge	colours available	in stock	no. per m²	no. per pack	no. per pallet	weight kg per pack GB	weight kg per pack NI/ROI
Riven Flags	600 x 600 x 38	Riven	Chamfered	Buff, Charcoal, Natural	YES	2.78	24	24	796	780
	450 x 450 x 35	Riven	Chamfered	Buff, Charcoal, Natural	YES	4.94	30	120	532	528
	400 x 400 x 40	Riven	Chamfered	Charcoal, Golden, Natural	YES	6.25	25	100	395	392

Natural

Charcoal

Buff

Golden

Standard Flags

Simple & stylish.

Standard Flags have a stylish, simple look. A variety of shades and size options, Standard Flags have the flexibility to blend with contemporary and traditional developments.

- Superb hard-wearing surface
- Vibrant long-lasting colours
- Cost-effective alternative

PrimeTop® Ef-Stop®

600 x 600mm

450 x 450mm

400 x 400mm

Sizes

35mm
40mm
50mm
65mm
70mm

Depths

Standard Flags

NS	PNS	NSS					
Non-Slip	Patio Non-Slip	Non-Slip Smooth	Permeable	Pedestrian Use	Light Traffic	Commercial Traffic	BIM Level 2

Finish — Also available as — Refer to relevant guidance in BS 7533

Natural

Charcoal

Red

Buff

Golden

Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Flag
Manufactured to	BS EN 1339:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >390kgs/m^3 cement
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	**Less than 50mm deep** Typical tensile splitting strength of >3.5MPa **50mm or greater** Typical tensile splitting strength of >5MPa (Class 3)
Slip/Skid risk	Extremely Low
Installed to	BS 7533-4:2006
NSS	**Plus** Q25 315 **Create** 45-20-64/395
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design and the most suitable product size for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 5%
Carbon Footprint	**600x600x50mm** 22kgCo^{2}e/m^2 **600x600x40mm** 16kgCo^{2}e/m^2 **450x450x70mm** 30kgCo^{2}e/m^2 (Buff: 32kgCo2e/m^2) **450x450x50mm** 22kgCo^{2}e/m^2 **450x450x35mm** 15kgCo^{2}e/m^2 (Buff: 16kgCo2e/m^2) **400x400x65mm** 28kgCo^{2}e/m^2 **400x400x50mm** 22kgCo^{2}e/m^2 **400x400x40mm** 18kgCo^{2}e/m^2
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	finish	edge	colours available	in stock	no. per m²	no. per pack	no. per pallet	weight kg per pack GB	weight kg per pack NI/ROI
Standard Flags BIM	600 x 600 x 50	Patio Non-Slip	Chamfered	Charcoal, Natural	YES	2.78	20	20	850	842
	600 x 600 x 40	Patio Non-Slip	Chamfered	Buff, Charcoal, Golden, Natural, Red	YES	2.78	24	24	848	840
	450 x 450 x 70	Patio Non-Slip	Chamfered	Natural	YES	4.94	15	60	512	508
	450 x 450 x 50	Patio Non-Slip	Chamfered	Buff, Charcoal, Natural	YES	4.94	20	80	474	470
	450 x 450 x 35	Non-Slip	Chamfered	Buff, Charcoal, Natural	YES	4.94	30	120	515	511
	400 x 400 x 65	Non-Slip Smooth	Chamfered	Charcoal, Natural	YES	6.25	16	64	400	398
				Buff, Golden, Red	SO					
	400 x 400 x 50	Non-Slip Smooth	Chamfered	Charcoal, Natural	YES	6.25	20	80	392	390
	400 x 400 x 40	Non-Slip Smooth	Chamfered	Buff, Charcoal, Golden, Natural, Red	YES	6.25	25	100	403	400

BIM - This product is available to download from our website in BIM Level 2 format.

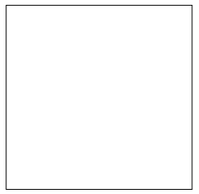
Tactile Flags

Aids the visually impaired & blind.

Tactile Flags are designed to assist pedestrians who are visually impaired or blind. Tactile Flags are available for three separate demarcations in a range of colours to enhance the distinction between roadways and adjoining paving.

- Available in Blister, Hazard Warning and Cycleway finishes
- Superb hard-wearing surface
- Vibrant long-lasting colours

Ef-Stop®

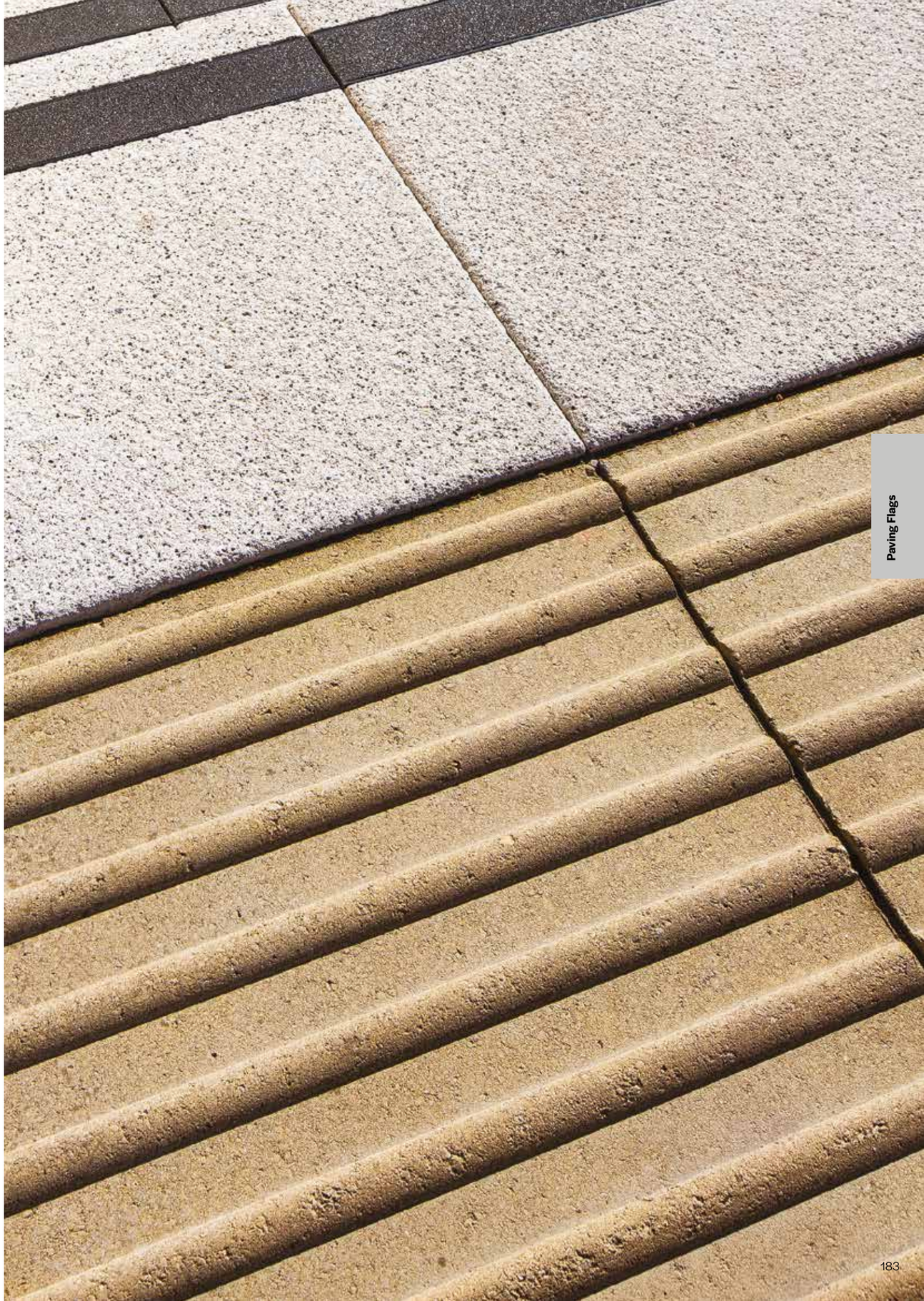


400 x 400mm

Sizes

50mm

Depths



Tactile Flags

B	HW	C
Blister	Hazard Warning	Cycleway

Finish

Pedestrian Use | Light Traffic

Refer to relevant guidance in BS 7533

Specification

Ef-Stop

Product type	Concrete Paving Flag
Manufactured to	BS EN 1339:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >390kgs/m³ cement
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >5MPa (Class 3)
Slip/Skid risk	Extremely Low
Installed to	BS 7533-4:2006
NSS	**Plus** Q25 320 **Create** 45-20-64/425
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design for your application. Available from www.bsigroup.co
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 5%
Carbon Footprint	22kgCo2e/m²
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	finish	edge	colours available	in stock	no. per m²	no. per pack	no. per pallet	weight kg per pack GB	weight kg per pack NI/ROI
Tactile Flags	400 x 400 x 50	Blister	Square	Buff, Red	YES	6.25	20	80	393	391
	400 x 400 x 50	Hazard Warning	Square	Buff, Natural	YES	6.25	20	80	416	414
	400 x 400 x 50	Cycleway	Square	Buff	YES	6.25	20	80	397	395

Blister

Blister flags enable the partially sighted and blind to distinguish between different types of crossing zones.

Red relates to controlled crossing zones, while Buff is available to distinguish uncontrolled crossing zones.

Hazard Warning

This pattern of half-rod shaped bars provides warning of a hazard which requires caution e.g. at the top and bottom of a flight of stairs.

It is recommended that the surface be in contrasting colour to the surrounding area so as to assist partially sighted people.

Cycleway

This bar pattern is used on a shared pedestrian/cycle route, which is not segregated by different levels. It is laid in two orientations, transverse to denote pedestrian path and longitudinal to denote cycle path.

Natural

Red

Golden

Technical Information

Important Information
Any technical information provided by Tobermore in relation to any product (whether before or after order) is provided by way of GUIDANCE ONLY and, to the fullest extent permitted by law, without liability on the part of Tobermore for any loss or damage suffered as a result of relying upon it. Such technical information should not be relied upon in substitution for obtaining independent expert advice prior to using any product from both a suitably qualified engineer and building contractor, in particular, as to the suitability of the product for use at the intended site for the intended scheme.

Paving Flags are now an established product in the construction industry and have a number of British Standards (BS) dedicated to the range to ensure they are professionally designed and installed. Refer to the following relevant BS guidelines for detailed information.

Note: BS guidelines are subject to change and therefore you should refer to www.bsigroup.com for the latest version.

BS 7533-4:2006	Pavements constructed with clay, natural stone or concrete pavers. Code of practice for the construction of pavements of precast concrete flags or natural stone slabs.
BS 7533-8:2003	Pavements constructed with clay, natural stone, or concrete pavers. Guide for the structural design of lightly trafficked pavements of precast concrete flags and natural stone flags.
BS 7533-11:2003	Code of practice for the opening, maintenance and reinstatement of pavements of concrete, clay and natural stone.
BS 7533-12:2006	Pavements constructed with clay, natural stone or concrete pavers. Guide to the structural design of trafficked pavements constructed on a bound base using concrete paving flags and natural stone slabs.

Important notes

Edge restraint
All paved areas require an edge restraint to prevent lateral movement of the paved area and to restrict the loss of laying course material. Edge restraints can be existing structures, kerbs, channels or standard paving blocks bedded onto and haunched with concrete.

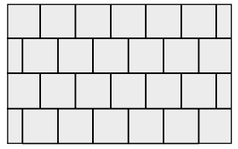
Paving flag Support Pads
Tobermore can provide fixed height plastic paving support pads to enable flags to be installed on roof terraces and balconies. Contact Tobermore for details.

Vibrant long-lasting colours
Tobermore only use high quality Iron Oxide pigments, (which are made to BS EN 12878), to produce our strong, vibrant and deep colours. Our state-of-the-art equipment makes our products extremely dense thus ensuring that our colours remain intact for very long periods. For example when we examine products which are 10 years old we can see that the colour retention is excellent. Tobermore would recommend that to maintain the colour and quality of product a regular maintenance programme is carried out on all projects.

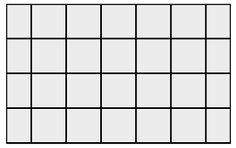
Instructions and warnings Refer to page 289

Laying Patterns

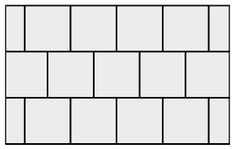
PAVING FLAGS



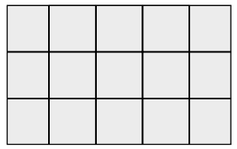
Stretcher bond
400 x 400mm



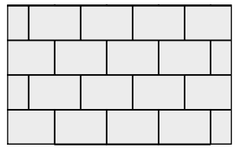
Stack bond
400 x 400mm



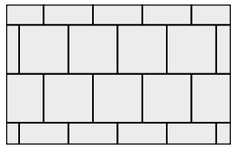
Stretcher bond
450 x 450mm



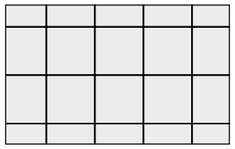
Stack bond
450 x 450mm



Stretcher bond
600 x 400mm

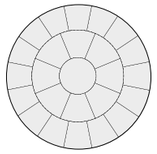


Stretcher bond
600 x 600mm



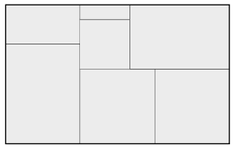
Stack bond
600 x 600mm

HISTORIC CIRCLE

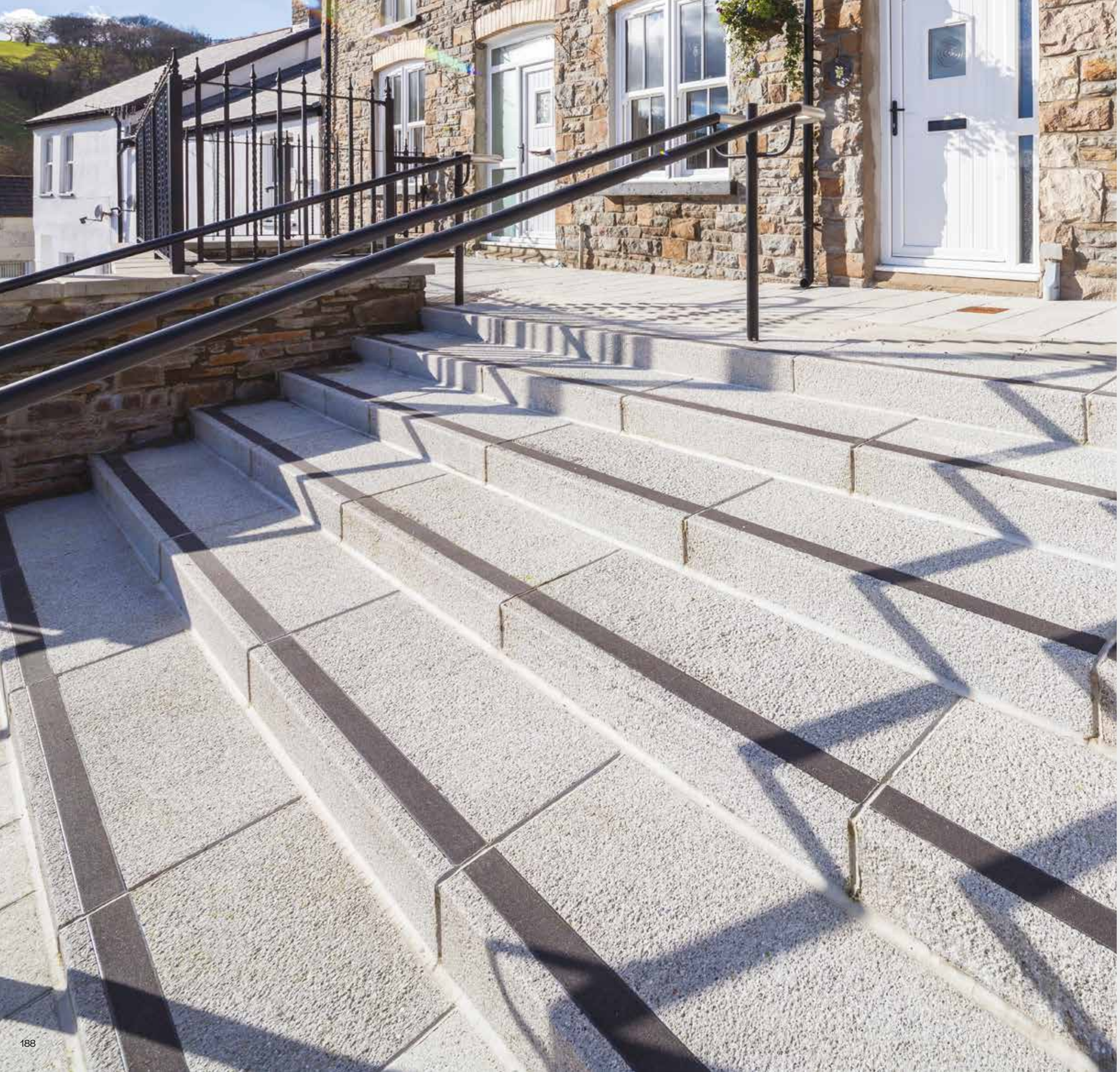


Historic Circle
Overall diameter 2.24m

HISTORIC FLAG



Stretcher bond
300 x 300mm, 300 x 450mm 450 x 450mm
600 x 300mm, 600 x 450mm



Steps

Product Range

Braemar Step Flags	190
Mayfair Step Flags with delineation strip	192
Mayfair Step Flags	196
Textured Step Flags	200
Step Risers	202
Granite Step Unit	206
Technical Information	210

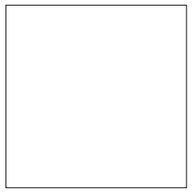
Braemar Step Flags

Diamond ground, granite aggregate step flags and risers.

The Braemar step flag is manufactured with natural granite aggregates to complement the diamond ground finishes of Braemar paving. The range includes a delineation strip option and a step riser.

- Matched to Braemar block and flag paving
- Superb hard-wearing granite surface
- Premium diamond ground finishes

PrimeTop® Ef-Stop®



400 x 400mm

Sizes

50mm

Depths

G Ground | GT Ground Textured

Finish

Pedestrian Use

Specification

PrimeTop® Ef-Stop®

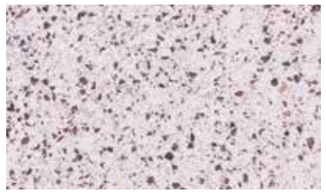
Product type	Concrete Paving Flag
Manufactured to	BS EN 1339:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >390kgs/m^3 cement
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >5MPa (Class 3)
Slip/Skid risk	Low
Installed to	BS 7533-4:2006
NBS	**Plus** Q25 315 **Create** 45-20-64/395
Applications	The product should be designed into projects using Building Regulations 2000, Part M, Access to and use of buildings for guidance.
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 6%
Carbon Footprint	22kgCo2e/m^2
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	finish	edge	colours available	in stock	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Braemar Edge Step with/without delineation strip	400x400x50	Ground / Ground Textured (Top & 1 Edge)	Chamfered	Alto Silver (can be produced with or without a black delineation strip)	SO	6.25	20	397	394
Braemar Corner Step with/without delineation strip	400x400x50	Ground / Ground Textured (Top & 2 Edges)	Chamfered	Alto Silver (can be produced with or without a black delineation strip)	SO	6.25	20	397	394
Braemar Riser with/without delineation strip	400x170x50	Ground / Ground Textured	Chamfered	Alto Silver (can be produced with or without a black delineation strip)	SO	2.6	20	167.45	167.45

Alto Silver



Mayfair Step Flags

with delineation strip

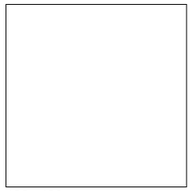
Granite effect with delineation strip.

With a striking granite appearance and hard-wearing surface, Mayfair Step Flags are both stylish and functional.

- Vibrant granite appearance
- Manufactured with natural granite aggregates
- Superb hard-wearing granite surface
- Vibrant long-lasting colours
- Creates a striking, contemporary look
- Flags and risers

PrimeTop® Ef-Stop®

600 x 400mm

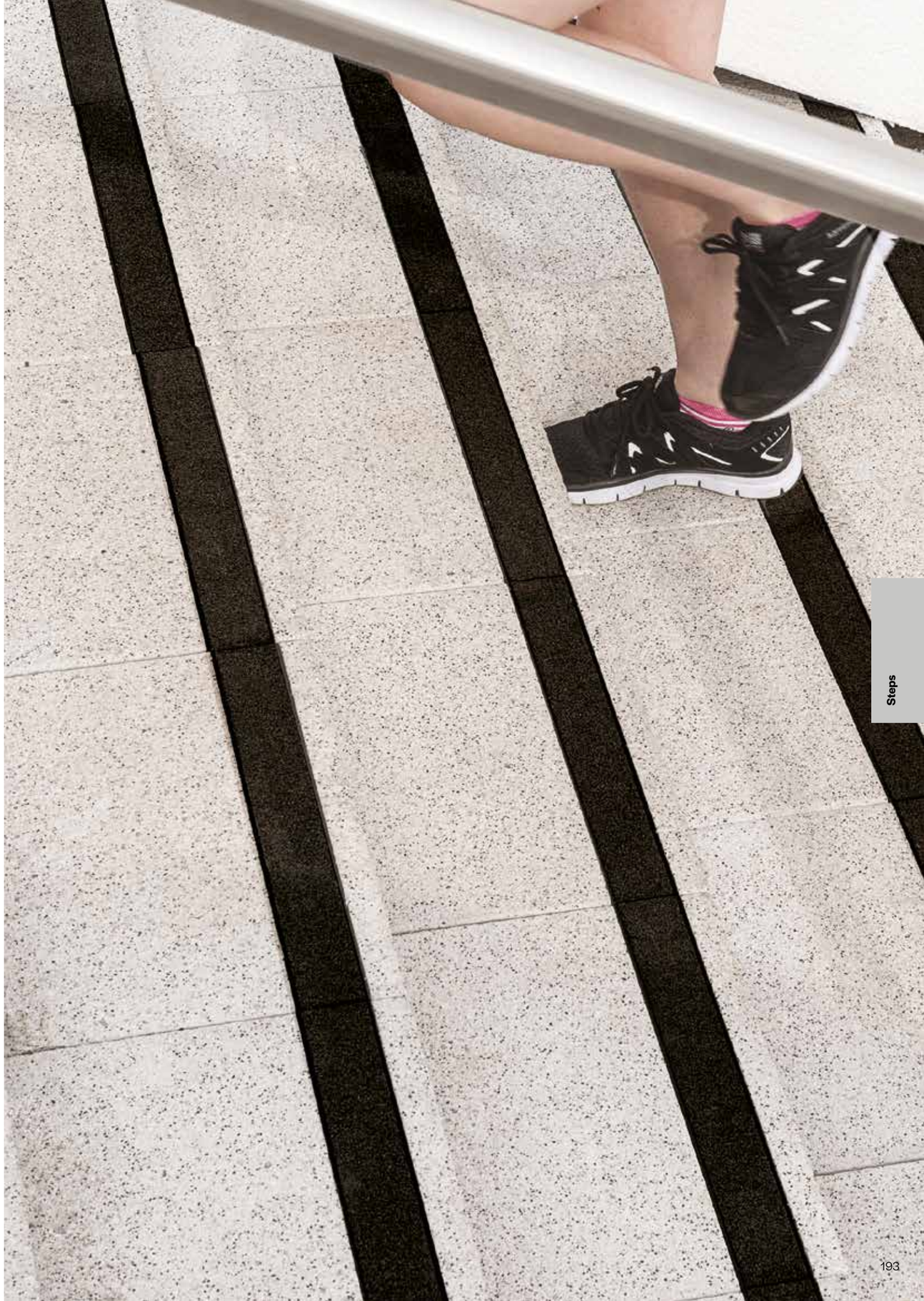


400 x 400mm

Sizes

40mm
50mm

Depths



Mayfair Step Flags

with delineation strip

TGA
Textured
Granite Aggregate
Finish

Pedestrian
Use

Specification

PrimeTop® Ef-Stop®

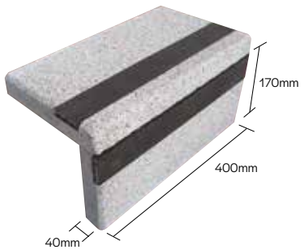
Product type	Concrete Paving Flag
Manufactured to	BS EN 1339:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >390kgs/m³ cement
Granite Content	Not less than 57% of granite aggregate in surface layer for Silver.
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	**Less than 50mm deep** Typical tensile splitting strength of >3.5MPa **50mm or greater** Typical tensile splitting strength of >5MPa (Class 3)
Slip/Skid risk	Extremely Low
Installed to	BS 7533-4:2006
NBS	**Plus** Q25 315 **Create** 45-20-64/395
Applications	This product should be designed into projects using guidance from the Building Regulations, British Standards and any other relevant documents.
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 6%
Carbon Footprint	**40mm** 16kgCo2e/m² **50mm** 19kgCo2e/m²
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	finish	edge	colours available	in stock	no. per m²	no. per pack	no. per pallet	weight kg per pack GB	weight kg per pack NI/ROI
Mayfair Edge Step with delineation strip	600 x 400 x 50	Granite Textured (Top & 1 Edge)	Chamfered	Silver Flag with Black Strip	SO	4.16	20	40	589	584
	400 x 400 x 40	Granite Textured (Top & 1 Edge)	Chamfered	Silver Flag with Black Strip	YES	6.25	25	100	403	401
Mayfair Corner Step with delineation strip	400 x 400 x 40	Granite Textured (Top & 2 Edges)	Chamfered	Silver Flag with Black Strip	YES	6.25	25	100	403	401
Mayfair Step Riser	400 x 170 x 40	Granite Textured	Chamfered	Silver (can be produced with or without delineation strip)	SO	-	25	100	195	192

Product Profile



Mayfair Step Riser Silver 400 x 170 x 40mm with Black Delineation Strip.
Note: risers may need to be cut to suit regulations

Step Example

Mayfair Corner Step 400 x 400 x 40mm with Delineation Strip | Mayfair Edge Step 400 x 400 x 40mm with Delineation Strip | Mayfair Corner Step 400 x 400 x 40mm with Delineation Strip

Mayfair Step Flags

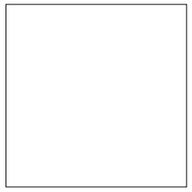
Granite effect step flags and risers.

If you're looking for superior concrete step flags with an elegant modern appearance, Mayfair Step Flags are a great choice. This product is ideal for creating a natural granite effect due to the eye-catching granite aggregate surface layer.

- Manufactured with natural granite aggregates
- Superb hard-wearing granite surface
- Vibrant long-lasting colours
- Creates a striking, contemporary look
- Flags and risers

PrimeTop® Ef-Stop®

600 x 400mm



400 x 400mm

Sizes

40mm
50mm

Depths

Mayfair Step Flags

TGA
Textured
Granite Aggregate
Finish

Pedestrian
Use

Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Flag
Manufactured to	BS EN 1339:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >390kgs/m^3 cement
Granite Content	Not less than 57% of granite aggregate in surface layer for Silver and Graphite; Not less than 46% of granite aggregate in surface layer for Sandstone.
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	**Less than 50mm deep** Typical tensile splitting strength of >3.5MPa **50mm or greater** Typical tensile splitting strength of >5MPa (Class 3)
Slip/Skid risk	Extremely Low
Installed to	BS 7533-4:2006
NSSPlus	**Plus** Q25 315 **Create** 45-20-64/395
Applications	This product should be designed into projects using guidance from the Building Regulations, British Standards and any other relevant documents.
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 6%
Carbon Footprint	**Edge Step** **40mm** Silver 16kgCo2e/m^2 Sandstone 17kgCo2e/m^2 Graphite 17kgCo2e/m^2 **50mm** Silver 19kgCo2e/m^2 Sandstone 22kgCo2e/m^2 Graphite 24kgCo2e/m^2 **Corner Step** **40mm** Silver 16kgCo2e/m^2 Sandstone 17kgCo2e/m^2 Graphite 17kgCo2e/m^2 **50mm** Silver 19kgCo2e/m^2 Sandstone 22kgCo2e/m^2 Graphite 24kgCo2e/m^2
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam **rating** www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

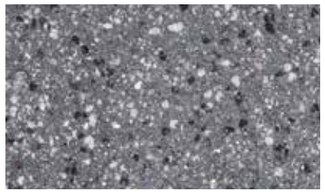
Step Example

Stock

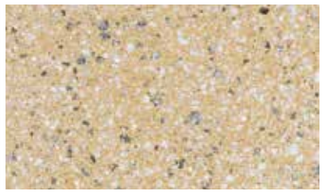
product	size (mm)	finish	edge	colours available	in stock	no. per m²	no. per pack	no. per pallet	weight kg per pack GB	weight kg per pack NI/ROI
Mayfair Edge Step	600 x 400 x 50	Granite Textured (Top & 1 edge)	Chamfered	Graphite, Sandstone, Silver	YES	4.16	20	40	589	584
	400 x 400 x 40	Granite Textured (Top & 1 edge)	Chamfered	Graphite, Sandstone, Silver	YES	6.25	25	100	403	401
Mayfair Corner Step	600 x 400 x 50	Granite Textured (Top & 2 edges)	Chamfered	Graphite, Sandstone, Silver	YES	4.16	20	40	589	584
	400 x 400 x 40	Granite Textured (Top & 2 edges)	Chamfered	Graphite, Sandstone, Silver	YES	6.25	25	100	403	401
Mayfair Step Riser	400 x 170 x 40	Granite Textured	Chamfered	Silver	SO	-	25	100	195	192

Silver

Graphite



Sandstone



The colour of Mayfair Step Flags may slightly vary to the normal Mayfair Flag.

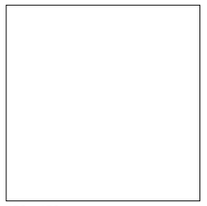
Textured Step Flags

Textured granular steps and risers.

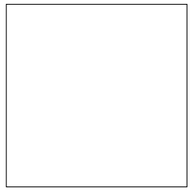
Our Textured Step Flags are ideal for incorporation on step areas that require style and durability. The unique granular finish and the understated colours available with these concrete step flags create a beautifully natural look.

- Superb hard-wearing textured surface
- Vibrant long-lasting colours
- Natural appearance
- Steps and risers

PrimeTop® Ef-Stop®



450 x 450mm



400 x 400mm

Sizes

35mm
40mm

Depths

T
Textured

Finish

Pedestrian Use

Specification

PrimeTop® Ef-Stop®

Product type	Concrete Paving Flag
Manufactured to	BS EN 1339:2003
Surface Layer	Hard-wearing surface layer with a minimum of 4mm and >390kgs/m^3 cement
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >3.5MPa
Slip/Skid risk	Extremely Low
Installed to	BS 7533-4:2006
NSSPlus	**Plus** Q25 315 **Create** 45-20-64/395
Applications	This product should be designed into projects using guidance from the Building Regulations, British Standards and any other relevant documents.
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 6%
Carbon Footprint	**Edge Step** **35mm** 15kgCo2e/m^2 **40mm** 19kgCo2e/m^2 **Corner Step** **35mm** 15kgCo2e/m^2 (Buff 17kgCo2e/m^2) **40mm** 19kgCo2e/m^2
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam **rating** www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	finish	edge	colours available	in stock	no. per m²	no. per pack	no. per pallet	weight kg per pack GB	weight kg per pack NI/ROI
Textured Edge Step	450 x 450 x 35	Textured (Top & 1 edge)	Chamfered	Buff, Charcoal, Natural	YES	4.94	30	120	521	517
	400 x 400 x 40	Textured (Top & 1 edge)	Chamfered	Charcoal, Golden, Natural	YES	6.25	25	100	403	401
Textured Corner Step	450 x 450 x 35	Textured (Top & 2 edges)	Chamfered	Buff, Charcoal, Natural	YES	4.94	30	120	521	517
	400 x 400 x 40	Textured (Top & 2 edges)	Chamfered	Charcoal, Golden, Natural	YES	6.25	25	100	403	401
Textured Step Riser	400 x 170 x 40	Textured	Chamfered	Buff, Golden, Charcoal, Natural (can be produced with or without delineation strip)	SO	-	25	100	195	192

Natural

Charcoal

Buff

Golden

The colour of Textured Step Flags may slightly vary to the normal Textured Flag.

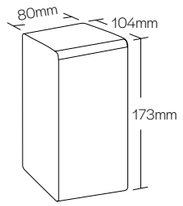
Step Risers

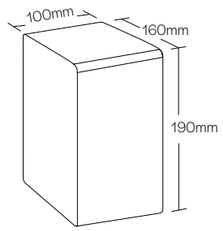
Decorative step edging.

These decorative step risers offer versatility and long-lasting colours. The smooth finish and vibrant solid and blended colours available enable the creation of distinctive step edges

- Enables the creation of distinctive and contrasting step edges
- A functional and aesthetically pleasing product
- Superb hard-wearing smooth surface
- Vibrant long-lasting colours
- Various Tobermore products can be used to infill the tread behind Step Risers

Ef-Stop®





Sizes

Step Risers

S
Smooth
Finish

Pedestrian Use

Specification

Ef-Stop®

Product type	Concrete Kerb
Manufactured to	BS EN 1338:2003
Surface Finish	Smooth
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >3.6MPa
Slip/Skid risk	Extremely Low
Installed to	BS 7533-6:1999
NSS	**Plus** Q10 150 **Create** 45-20-64/370
Applications	This product should be designed into projects using guidance from the Building Regulations, British Standards and any other relevant documents.
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 5%
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	Refer to the Green Guide to Specification, 4th Edition 2009.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	no. per slice	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Step Risers	160 x 190 x 100	Bracken, Charcoal, Heather, Natural	YES	40	240	1669	1659
	173 x 104 x 80	Bracken, Charcoal, Heather, Natural	YES	80	560	1865	1855

Heather

Bracken

Natural

Charcoal

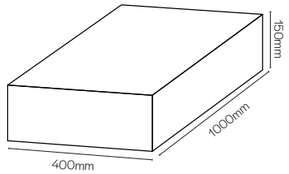
Granite Step Unit

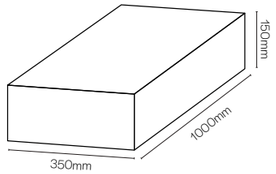
Granite aggregate steps.

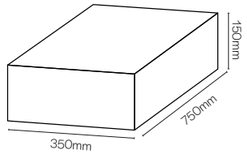
Crafted with natural granite aggregates, Granite Step Units have an attractive, natural appearance and coarse textured surface, making these paving steps a stylish and practical choice for your project.

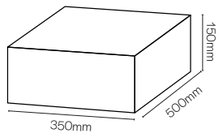
- Available with the inclusion of contrasting delineation strip
- Manufactured with natural granite aggregates
- Vibrant long-lasting colours
- Creates a striking, contemporary look

Ef-Stop®









Sizes

Granite Step Unit

TGA
Textured
Granite Aggregate
Finish

Pedestrian
Use

BIM
Level 2

Specification

Ef-Stop®

Product type	Concrete Block
Manufactured to	BS EN 1339:2003
Granite Content	Not less than 56.4% of granite aggregate in surface layer.
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >5MPa (Class 3)
Slip/Skid risk	Extremely Low
NBS	**Plus** Q24 110 **Create** 45-20-64/400
Applications	This product should be designed into projects using guidance from the Building Regulations, British Standards and any other relevant documents.
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	Refer to the Green Guide to Specification, 4th Edition 2009.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

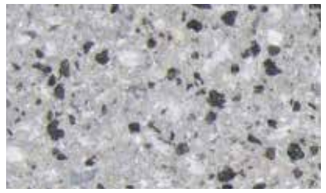
Product Profile

Stock

product	size (mm)	finish	edge	colours available	in stock	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Granite Step Unit (also available with one or two delineation strips in black on request) **BIM**	400 x 150 x 1000	Granite Textured	Square	Granite Aggregate	Textured to order	10	1370	1370
	350 x 150 x 1000	Granite Textured	Square	Granite Aggregate	Textured to order	10	1200	1200
	350 x 150 x 750	Granite Textured	Square	Granite Aggregate	MTO	10	900	900
	350 x 150 x 500	Granite Textured	Square	Granite Aggregate	MTO	20	1200	1200

BIM - This product is available to download from our website in BIM Level 2 format.

Granite Aggregate



Technical Information

Important Information
Any technical information provided by Tobermore in relation to any product (whether before or after order) is provided by way of GUIDANCE ONLY and, to the fullest extent permitted by law, without liability on the part of Tobermore for any loss or damage suffered as a result of relying upon it.

Such technical information should not be relied upon in substitution for obtaining independent expert advice prior to using any product from both a suitably qualified engineer and building contractor, in particular, as to the suitability of the product for use at the intended site for the intended scheme.

The following documents should be referred to for specific guidance:

Building Regulations	Latest editions of UK & Ireland documents. Access and use of buildings.
BS 8300:2009 +A1:2010	Design of buildings and their approaches to meet the needs of disabled people.

Note: BS guidelines are subject to change and therefore you should refer to www.bsigroup.com for the latest version.
It is the designers responsibility to ensure that the steps and risers specified meet the Building Regulations and British Standard requirements.

Important notes

Tactile Flags
Tobermore also supply a range of Tactile Flags.

Delineation Strips
All delineation strips are tested for slip resistance in both wet and dry conditions to BS 7976-2:2002. The strips are made from Aluminium Oxide formed in a rigid PVC channel. Care should be taken not to use solvent based cleaners as this can affect the Aluminium Oxide.

Light Reflectance Value (LRV)
An important consideration for step access is the Light Reflective Value (LRV) of the products that are being considered for use. Products with a sufficient difference in LRV can assist blind and partially sighted people to distinguish between them. Tobermore can provide the LRV results on all products in this brochure. Contact Tobermore for further information.

There is a wide range of documents and guidance on what aspects need to be taken into consideration when designing stepped access to and from buildings.

Industry Documents
It is essential when designing stepped access to and from buildings that all relevant industry regulations and guidance documents are considered and that the information in these documents are implemented by the specifier into their project. The following information gives architects guidance on the regulations which is required when designing steps for external use.

Building Regulations 2000, Part M, Access to and use of buildings. Approved Document 2004 Edition.
This document provides relevant information on what is required to meet compliance with its regulations. It provides guidance and examples for some of the most common building situations.

BSI, the business standards company, has revised BS 8300:2018 Design of an accessible and inclusive built environment.

This document provides guidance on good practice in the design of buildings and also gives some recommendations. There are examples of how to design approaches and other associated routes in the immediate vicinity of the building. This ensures that they are convenient to use by everyone including those with reduced mobility. This British Standard should be considered alongside the building regulations and therefore whilst ensuring good practice it is not necessarily equivalent to compliance with the guidance in Part M.

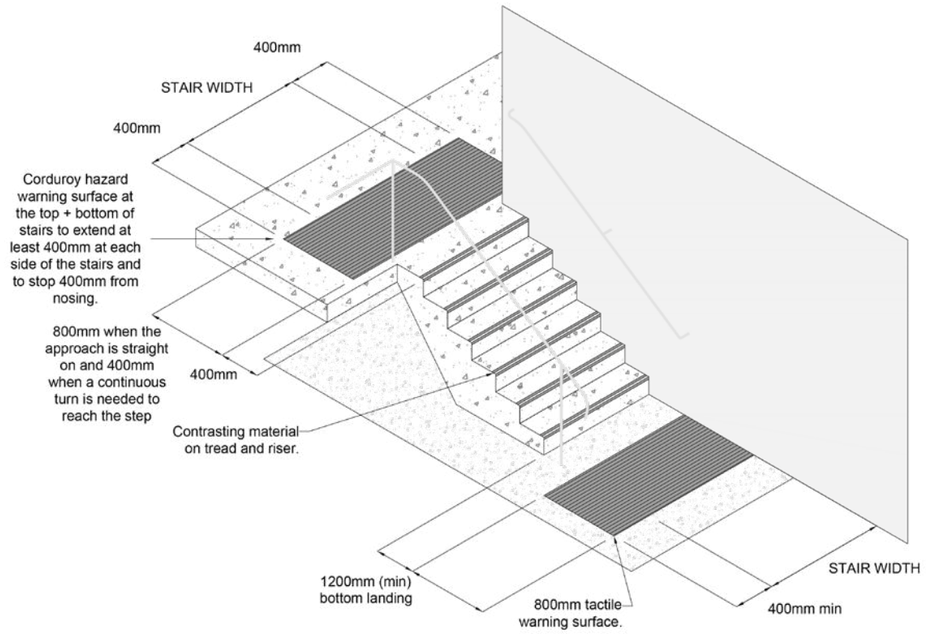
Ireland Building Regulations TGD M 2010, Part M Access and Use.
Each individual project should be considered separately and confirmation on the compliance should be sought from the planning / access officer responsible.

The regulations listed here and adherence to them does not guarantee compliance as they are not exhaustive.

Another source of good practice and guidance is the Inclusive Mobility document provided by the Department of Transport.

Please refer to Tobermore's Steps brochure for more comprehensive information.

Instructions and warnings
Refer to page 289



Kerbs & Edging

Product Range

Country Kerb	214
Radii Kerb	218
Quadrant Kerb	222
Kerbstone	224
Kerbsett	228
Kerb Large (KL)	230
Kerb Small (KS)	234
Tegula Kerb Large (TKL)	236
Kerb Specials	238

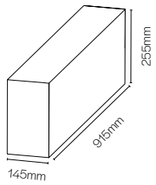
Country Kerb

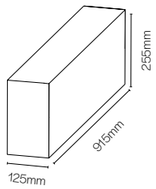
Heavy duty kerb.

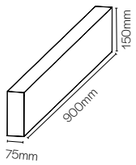
Country Kerb has an aged appearance with a hint of sparkle. This robust, traditional kerb is available in a range of finishes including granite.

- Features an exposed granular surface
- Emulates the unique aged appearance of traditional granite kerbs
- Offers all the benefits of modern concrete kerbing
- Designed with strength and durability in mind

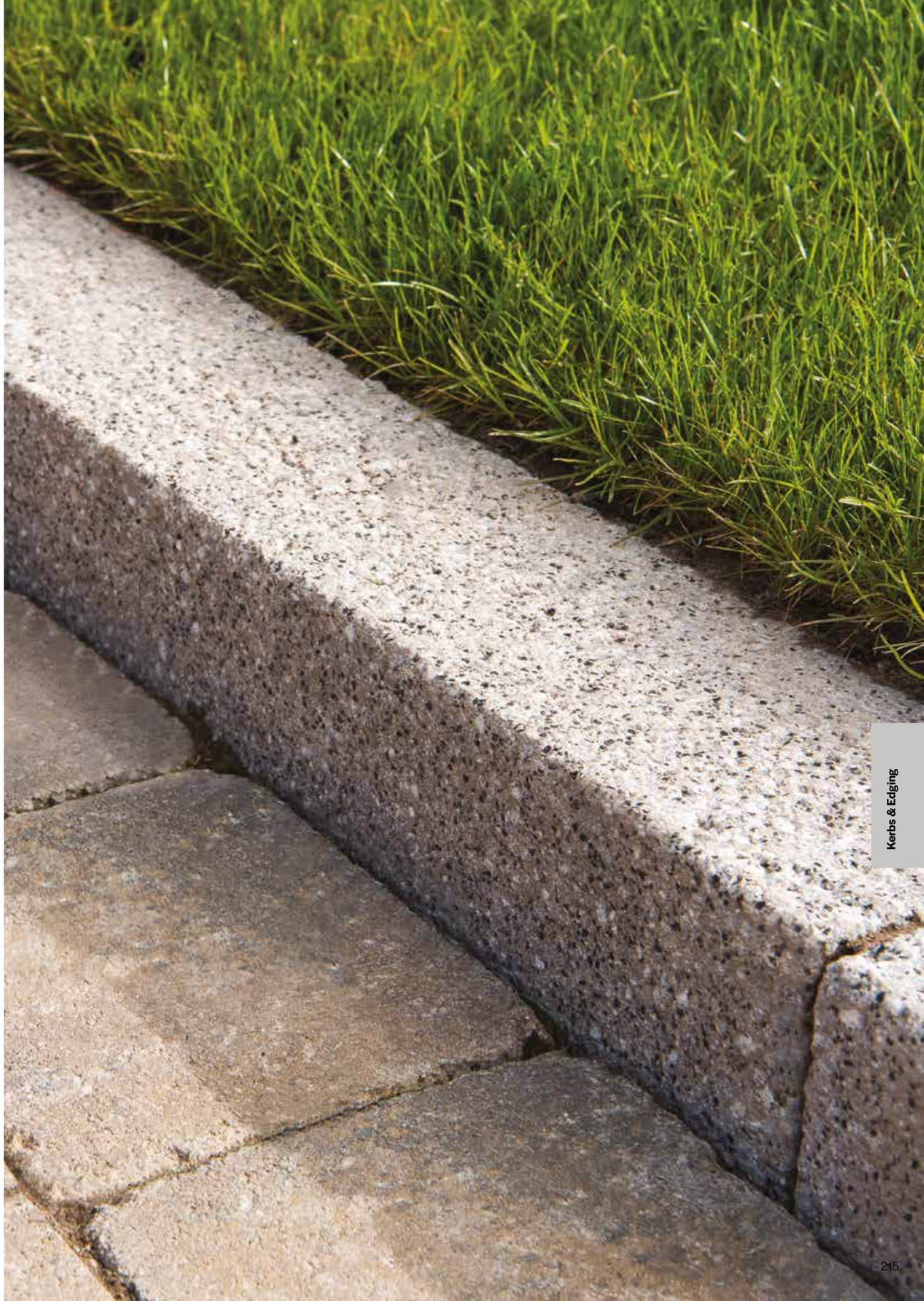
Ef-Stop®







Sizes



Country Kerb

TGA
Textured
Granite Aggregate
Finish

Pedestrian
Use

BIM
Level 2

Specification

Ef-Stop®

Product type	Concrete Kerb
Manufactured to	BS EN 1340: 2003
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >3-5MPa
Slip/Skid risk	Extremely Low
Installed to	BS 7533-6:1999
NBS	**Plus** Q10 110 **Create** 45-20-64/370 **Plus** Q10 110 **Create** 45-20-64/365
Applications	Residential and Commercial when designed in accordance with the latest British Standard. Available from **www.bsigroup.com**
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 5%
Carbon footprint	**255x125x915mm** 13kgCo2e/ea **255x145x915mm** 13kgCo2e/ea **150x75x90mm** 4kgCo2e/ea
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam **rating** www.**bre**.co.uk	Refer to the Green Guide to Specification, 4th Edition 2009.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 quality. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

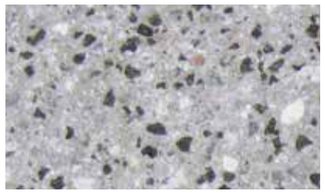
Stock

product	size (mm)	colours available	in stock	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Country Kerb BIM	255 x 125 x 915	Granite Aggregate, Standard Aggregate	YES	18	1251	1251
	255 x 145 x 915	Graphite	SO	16	1282	1282
Country Edge BIM	150 x 75 x 900	Granite Aggregate	YES	60	1200	1200
Country Kerb Dropper (specify left or right hand dropper)	255/150 x 125 x 915	Granite Aggregate, Standard Aggregate	YES	18	924	915
	255/150 x 145 x 915	Granite Aggregate	MTO	16	969	960
Dropper Centre Kerb	150 x 125 x 915	Granite Aggregate	MTO	36	1512	1512
	150 x 145 x 915	Granite Aggregate	MTO	32	1504	1504
External or Internal Corner	255 x 145 x 915	Granite Aggregate	MTO	16	1282	1282

BIM - This product is available to download from our website in BIM Level 2 format.

Graphite

Granite Aggregate



Standard Aggregate

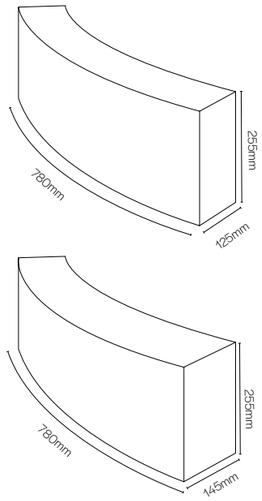
Radii Kerb

Curves & arcs.

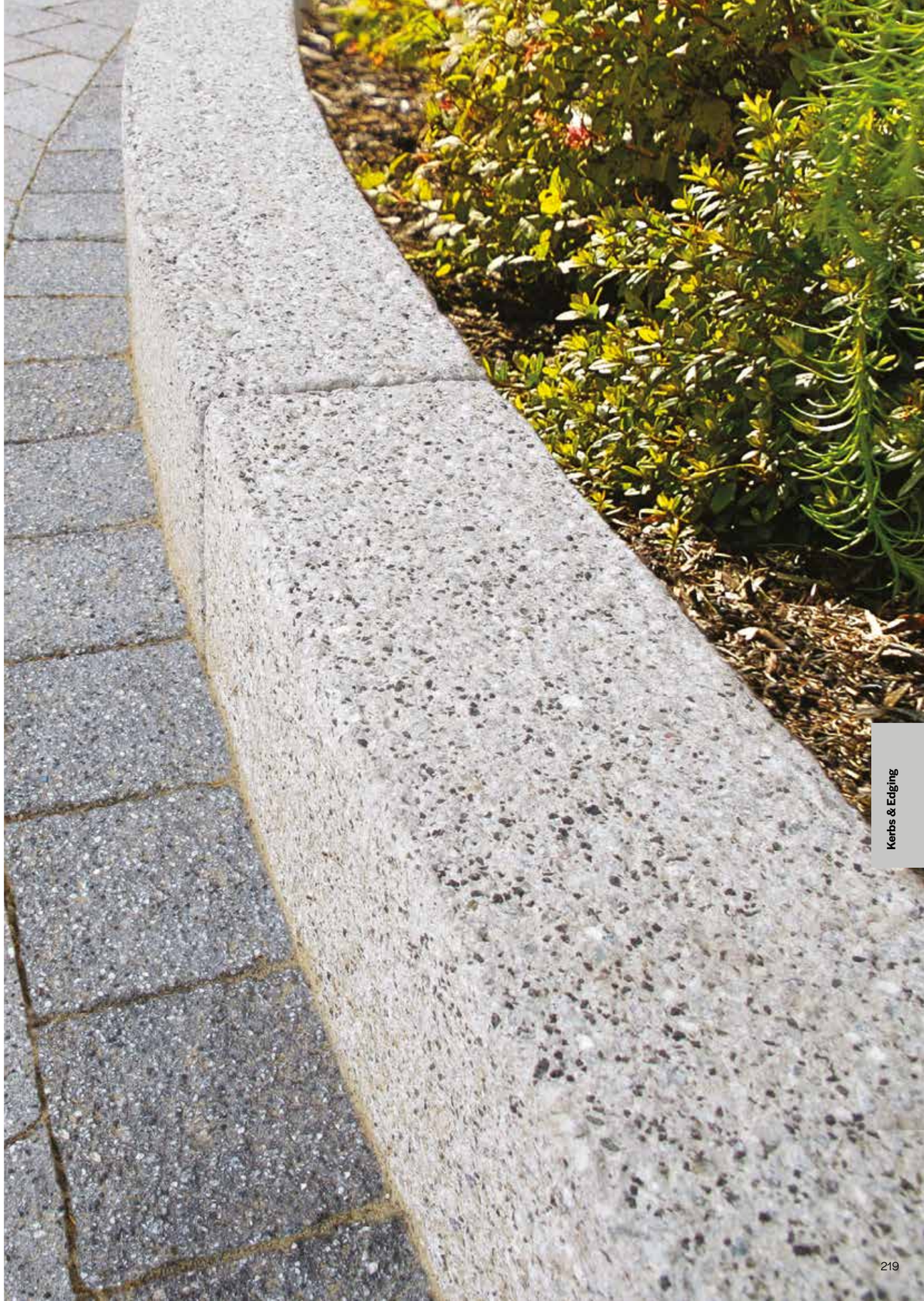
Radii Kerbs is an extensive range including both concave and convex kerbs, so any type of bend, curve or arc can be created. Choose from standard or granite finish.

- Specially manufactured radius kerbs, either concave or convex
- Attractive finish options
- Provides high quality detailing

Ef-Stop®



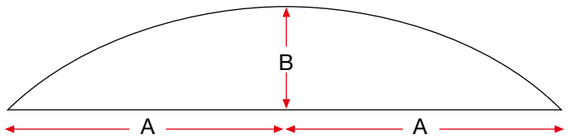
Sizes



Radii Kerb

Calculating the radius of a curve

The size of any radius can be determined by measuring the length of a chord stretched between the arc and then measuring a perpendicular to that chord at the centre. This is illustrated in the diagram below. This is a handy equation often used on site to determine the size of an unknown radius that is to be kerbed, so that the correct size of radius kerbs can be used.



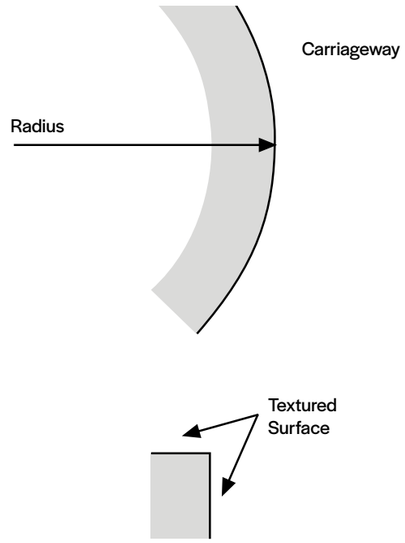
$$\text{Radius} = \frac{A^2 + B^2}{2B}$$

The size of a radius is ALWAYS measured to the face of the kerbline, whether the radius is internal or external.

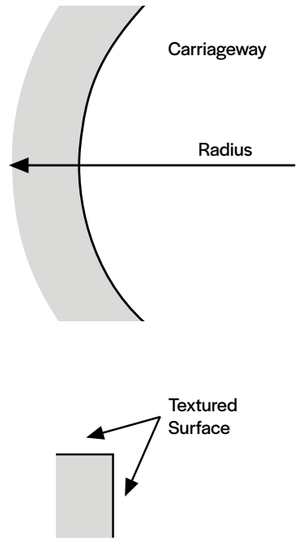
TGA
Textured Granite Aggregate
Finish

Pedestrian Use

Convex (external) Radius



Concave (internal) Radius



Specification

Ef-Stop

Product type	Concrete Kerb
Manufactured to	BS EN 1340:2003
Strength	Typical tensile splitting strength of >3.5MPa
Installed to	BS 7533-6:1999
NSS Plus	**Plus** Q10 110 **Create** 45-20-64/370
Applications	As per Country Kerb
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 5%
Carbon footprint	13kgCo2e/ea
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam **rating** www.**bre**.co.uk	Refer to the Green Guide to Specification, 4th Edition 2009.

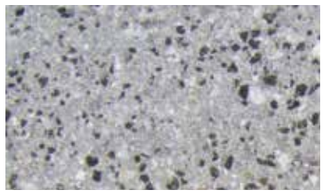
Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 quality. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	no. per quarter circle	colours available	in stock	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Radii Kerb 125mm (*radius of curve) **Internal or External**	255 x 125 x 780 (1m*)	2	Granite Aggregate	TEXTURED TO ORDER	18	1206	1206
	255 x 125 x 780 (3m*)	2	Standard Aggregate, Granite Aggregate	TEXTURED TO ORDER	18	1206	1206
	255 x 125 x 780 (4m*)	8	Granite Aggregate	TEXTURED TO ORDER	18	1206	1206
	255 x 125 x 780 (5m*)	10	Granite Aggregate	TEXTURED TO ORDER	18	1206	1206
	255 x 125 x 780 (6m*)	12	Standard Aggregate, Granite Aggregate	TEXTURED TO ORDER	18	1206	1206
	255 x 125 x 780 (9m*)	18	Standard Aggregate, Granite Aggregate	TEXTURED TO ORDER	18	1206	1206
Radii Kerb 145mm (*radius of curve) **Internal or External**	255 x 145 x 780 (1m*)	2	Granite Aggregate	TEXTURED TO ORDER	16	1998	1998
	255 x 145 x 780 (3m*)	6	Granite Aggregate	TEXTURED TO ORDER	16	1998	1998
	255 x 145 x 780 (4m*)	8	Granite Aggregate	TEXTURED TO ORDER	16	1998	1998
	255 x 145 x 780 (5m*)	10	Granite Aggregate	TEXTURED TO ORDER	16	1998	1998
	255 x 145 x 780 (6m*)	12	Granite Aggregate	TEXTURED TO ORDER	16	1998	1998
	255 x 145 x 780 (9m*)	18	Granite Aggregate	TEXTURED TO ORDER	16	1998	1998

Standard Aggregate

Granite Aggregate

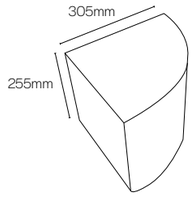


Quadrant Kerb

Curved edging.

Quadrant Kerbs create a neat finish where curved edging is required. The product is manufactured to complement accompanying kerb products in; natural, standard or granite aggregate finishes.

- Designed to form a subtle curved finish
- Manufactured with complementary profiles and finishes
- Solid Quadrant Kerbs or Precast Radii Quadrant Kerbs are available



Size

Ef-Stop®

TGA Textured Granite Aggregate | **S** Smooth | **T** Textured

Finish

Pedestrian Use

Specification

Ef-Stop®

Product type	Concrete Kerb
Manufactured to	BS EN 1340:2003
Strength	Typical tensile splitting strength of >3.5MPa
Installed to	BS 7533-6:1999
NBS	**Plus** Q10 110 **Create** 45-20-64/370
Applications	Residential and Commercial when designed in accordance with the latest British Standard. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 5% (all colours except Granite Aggregate)
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	Refer to the Green Guide to Specification, 4th Edition 2009.

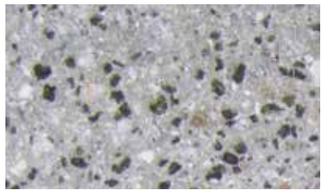
Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 quality. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Solid Quadrant Kerb	255 x 305	Granite Aggregate, Natural, Standard Aggregate	MTO	4	184	184

Natural

Granite Aggregate



Standard Aggregate

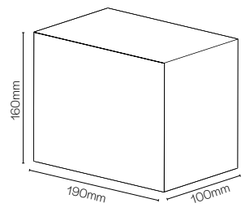
Kerbstone

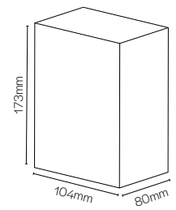
Tumbled kerb edging.

Kerbstone has an antique appearance created using our innovative tumbling process, producing a warm aged finish on all sides of the kerb, Kerbstone can be laid in any orientation.

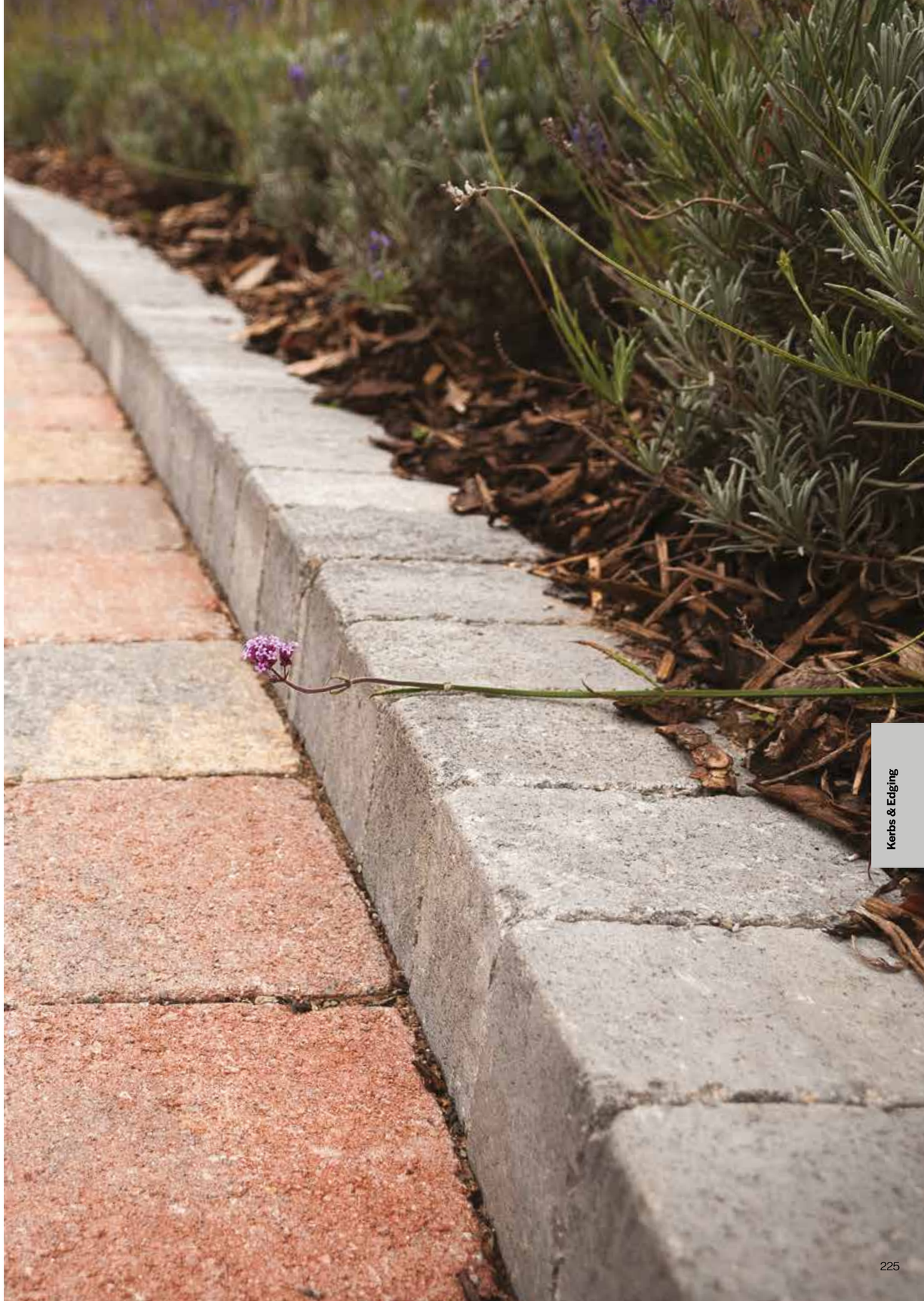
- Tumbled to give an aged, antique appearance
- Vibrant long-lasting colours
- All sides are finished so it can be laid in any orientation

Ef-Stop®





Sizes



Kerbstone

A
Aged
Finish

Pedestrian Use

BIM Level 2

Specification

Ef-Stop

Product type	Concrete Kerb
Manufactured to	BS EN 1338:2003
Installed to	BS 7533-6:1999
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >3.6MPa
NBS	**Plus** Q10 150 **Create** 45-20-64/370
Applications	Residential and Commercial when designed in accordance with the latest British Standard. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 10% (all colours except natural)
Carbon footprint	**190x160x100mm** 1.2kgCo²e/ea **104x173x80mm** 0.6kgCo²e/ea
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam **rating** www.**bre**.co.uk	Refer to the Green Guide to Specification, 4th Edition 2009.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 quality. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	no. per slice	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Kerbstone BIM	190 x 160 x 100	Bracken, Cedar, Charcoal, Heather, Natural	YES	35	210	1460	1450
	104 x 173 x 80	Bracken, Charcoal, Heather, Natural	YES	72	504	1638	1628

BIM - This product is available to download from our website in BIM Level 2 format.

Heather

Bracken

Cedar

Charcoal

Natural

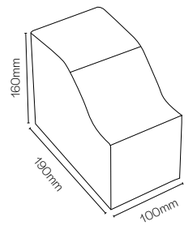
Kerbsett

Decorative kerb edging.

Kerbsett is a decorative product offering a stylish alternative to traditional paving systems. The variety of colour choices available offers further versatility.

- Versatile alternative to traditional concrete kerbs
- Dual purpose profile offers various laying options (splayed or bullnosed)
- Vibrant long-lasting colours
- Offers ease of installation
- Kerbsett Specials are available

Ef-Stop®



Size

S
Smooth
Finish

Pedestrian Use

Specification

Ef-Stop®

Product type	Concrete Kerb
Manufactured to	BS EN 1338:2003
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >3.6MPa
Installed to	BS 7533-6:1999
NSS	**Plus** Q10 150 **Create** 45-20-64/370
Applications	Residential and Commercial when designed in accordance with the latest British Standard. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 5%
Carbon footprint	11kgCo²e/lm
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	Refer to the Green Guide to Specification, 4th Edition 2009.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 quality . Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	lm per pack	lm per slice	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Kerbsett	190 x 160 x 100	Bracken, Brindle, Charcoal, Heather	YES	24	4	240	1497	1487

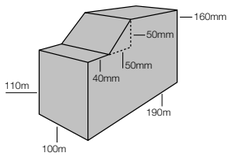
Heather

Bracken

Brindle

Charcoal

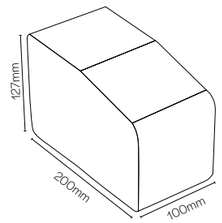
Product Profile



Kerb Large (KL)

Versatile, large smooth kerb.

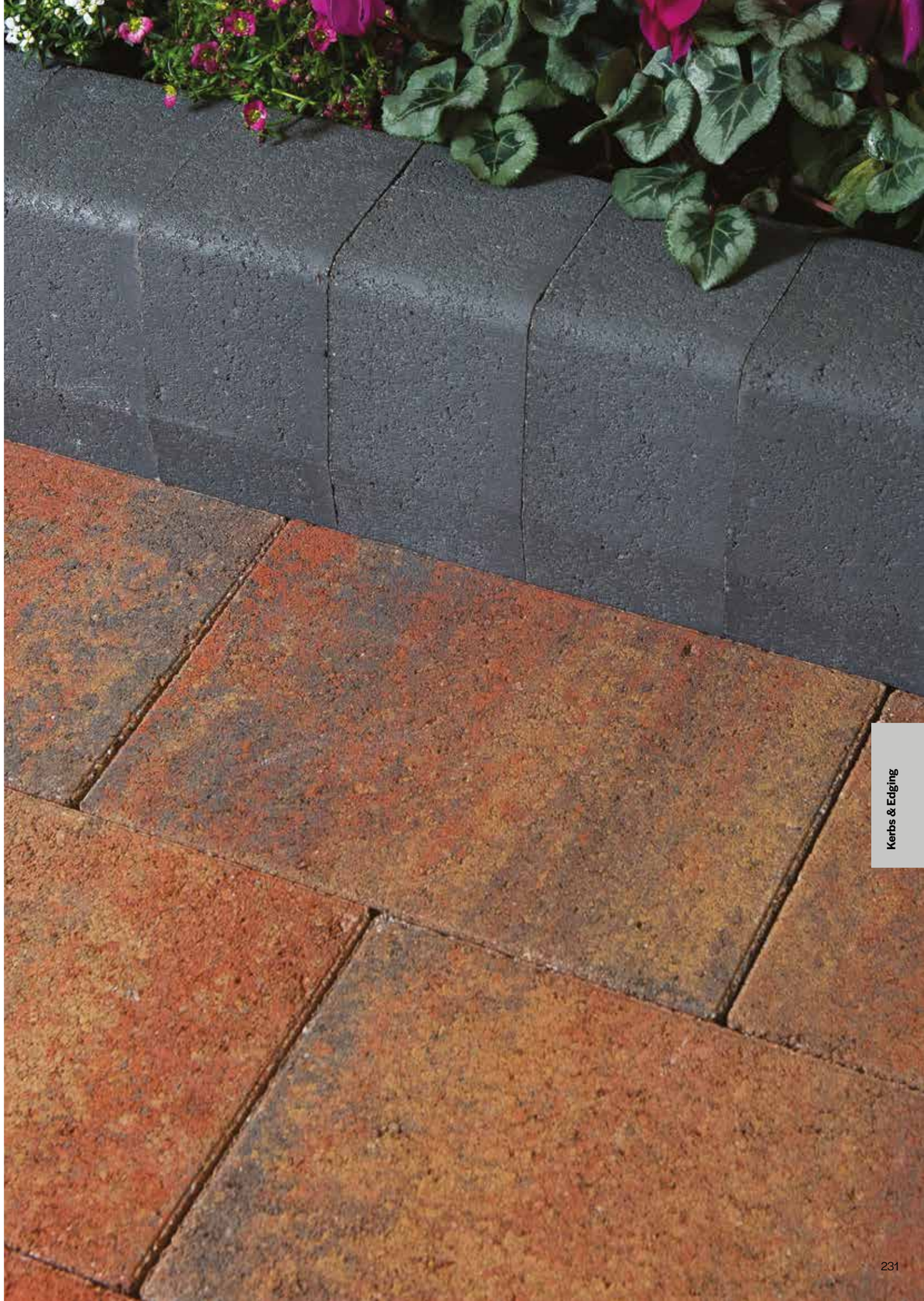
Kerb Large is a dual purpose profile available in a range of solid and multi tone long-lasting colours. This versatile alternative to traditional concrete kerbs offers a variety of laying possibilities.



Size

- Versatile alternative to traditional concrete kerbs
- Dual purpose profile offers various laying options (splayed or bullnosed)
- Vibrant long-lasting colours
- Kerb Large Specials are available

Ef-Stop®



Kerb Large (KL)

S
Smooth
Finish

Pedestrian Use

Specification

Ef-Stop

Product type	Concrete Kerb
Manufactured to	BS EN 1338:2003
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >3.6MPa
Installed to	BS 7533-6:1999
NSS	**Plus** Q10 150 **Create** 45-20-64/370
Applications	Residential and Commercial when designed in accordance with the latest British Standard. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 10%
Carbon footprint	11kgCo²e/LM
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	Refer to the Green Guide to Specification, 4th Edition 2009.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 quality. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	lm per pack	lm per slice	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Kerb Large	200 x 127 x 100	Bracken, Brindle, Charcoal, Heather, Natural	YES	28.8	4.8	288	1549	1539

Heather

Bracken

Brindle

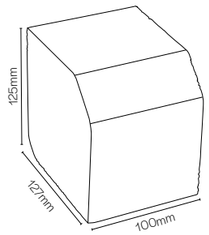
Charcoal

Natural

Kerb Small (KS)

Versatile, small smooth kerb.

Kerb Small is a dual purpose profile available in a range of solid and multi-tone long-lasting colours. This versatile alternative to traditional concrete kerbs offers a variety of laying possibilities.



Size

- Versatile alternative to traditional concrete kerbs
- Dual purpose profile offers various laying options (splayed or bullnosed)
- Vibrant long-lasting colours
- Kerb Small Specials are available

Ef-Stop

S
Smooth
Finish

Pedestrian Use

Specification

Ef-Stop

Product type	Concrete Kerb
Manufactured to	BS EN 1338:2003
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >3.6MPa
Installed to	BS 7533-6:1999
NSS	**Plus** Q10 150 **Create** 45-20-64/370
Applications	Residential and Commercial when designed in accordance with the latest British Standard. Available from **www.belgroup.com**
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 10%
Carbon footprint	11kgCo^2e/LM
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	Refer to the Green Guide to Specification, 4th Edition 2009.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 quality. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	lm per pack	lm per slice	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Kerb Small	125 x 127 x 100	Bracken, Brindle, Charcoal, Heather	YES	43.2	5.4	432	1505	1505

Heather

Bracken

Brindle

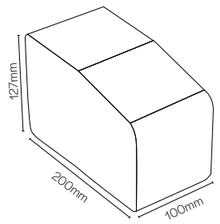
Charcoal

Tegula Kerb Large (TKL)

Traditional, aged effect kerbs.

Tegula Kerb Large is a dual purpose profile in a range of solid and multi-tone colours. This large kerb undergoes a tumbling process during manufacturing that produces an aged, antique appearance.

- Processed to give an aged appearance
- Versatile alternative to traditional concrete kerbs
- Dual purpose profile offers various laying options (splayed or bullnosed)
- Vibrant long-lasting colours
- Tegula Kerb Large Specials are available



Size

Ef-Stop®

A
Aged
Finish

Pedestrian Use

Specification

Ef-Stop®

Product type	Concrete Kerb
Manufactured to	BS EN 1338:2003
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >3.6MPa
Installed to	BS 7533-6:1999
NBS	**Plus** Q10 150 **Create** 45-20-64/370
Applications	Residential and Commercial when designed in accordance with the latest British Standard. Available from **www.bsigroup.com**
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 10%
Carbon footprint	1.2kgCo^2e/ea
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	Refer to the Green Guide to Specification, 4th Edition 2009.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 quality. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	no. per slice	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Tegula Kerb Large	200 x 127 x 100	Bracken, Brindle, Cedar, Charcoal, Heather, Natural, Slate	YES	48	288	1549	1539

Heather

Bracken

Brindle

Slate

Charcoal

Natural

Cedar

Kerb Specials

Specialised, decorative edging.

Ef-Stop®

- Designed to meet specialised kerbing requirements
- Various corner, transition, drop and end blocks are available
- Vibrant long-lasting colours

Kerbsett Specials

Right Angle Corner
External High
(Type EC/H)

Right Angle Corner
Internal High
(Type IC/H)

Right Angle Corner
External Low
(Type EC/L)

Right Angle Corner
Internal Low
(Type IC/L)

Transition Kerb
Low Position to Half Batter
(Type L-7)
High Position to Half Batter
(Type H-7)

End Block
Low position to End
Block
(Type L-E)

45° Internal Corner
Low (Type I45/L)
High (Type I45/H)

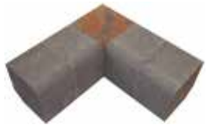
45° External Corner
Low (Type E45/L)
High (Type E45/H)

Curves
(external radius less than 1m)
Low (Type ER/L)
High (Type ER/H)

Kerb Small Specials (KS)

90° Angle
External Splayed

90° Angle
Internal Splayed



90° Angle
Internal Bullnosed

90° Angle
Internal Bullnosed

Kerb Large Specials (KL)

Flat 90° Angle
External

Half Battered 90°
Angle External

Bullnosed 90° Angle
External

Flat 90° Angle
Internal

Half Battered 90°
Angle Internal

Bullnosed 90° Angle
Internal

Tegula Kerb Large Specials (TKL)

Flat 90° Angle
External

Half Battered 90°
Angle External

Bullnosed 90° Angle
External

Flat 90° Angle
Internal

Half Battered 90°
Angle Internal

Bullnosed 90° Angle
Internal

Walling & Masonry

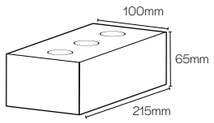
Product Range

Lansdowne	242
Kingston	246
Engineering Quality Concrete Brick	250
Country Stone	252
Specials	256
Technical Information	260

Lansdowne

Rustic effect facing brick.

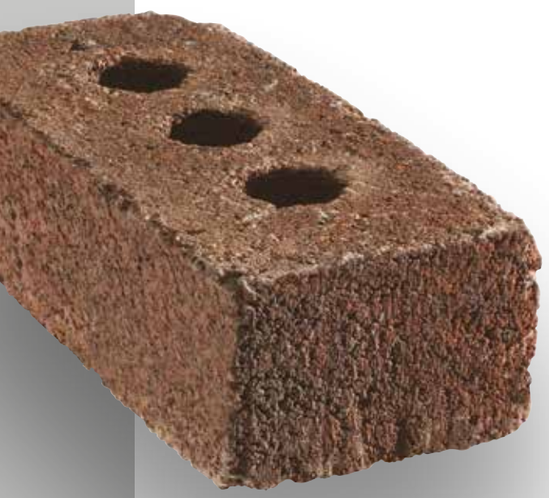
Lansdowne facing brick is manufactured with a warm and aged feel. Lansdowne bricks are known for their hard-wearing capabilities and exceptional long-lasting colours.



Size

- Tumbled to give an aged, rustic appearance
- Evokes timeless warmth and elegance
- Vibrant long-lasting colours
- Suitable for both modern or period properties

Ef-Stop®



Lansdowne Facing Brick

A
Aged
Finish

Specification

Ef-Stop

Product type	Concrete Facing Brick
Manufactured to	BS EN 771-3:2011
Manufacturing process	Processed to give aged appearance
Brick type	Perforated (3 holes per brick)
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >22N/mm²
Shrinkage (Moisture Movement)	0.44mm/m
Weight	2.7kg per brick (average)
Durability (Freeze/Thaw)	F2 (Severe Exposure)
Tolerances	Category D1
Reaction to fire	A1
Water absorption by capillary	2 g/m²s
Water absorption	<7% water absorption on average
Soluble Salts	S2
Net dry density	2220 kg/m³
Gross dry density	1930 kg/m³
Shear bond strength	0.15N/mm²
Thermal Conductivity	Protected 1.59W/m K Exposed 1.70 W/m K
Mortars & Expansion Joints	Refer to BS 5628-3:2005
Bed Reinforcement	Refer to BS 5628-3:2005
Specials	Range of complementary brick specials are available
Installed to	BS 5628-3:2005
NSR	**Plus** F10 215 **Create** 45-80-50/302
Applications	Please refer to Table 15 of PD 6697: 2010. For further details please refer to www.tobermore.co.uk
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 10%
Carbon footprint	22kgCo²e/m²
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam **rating** www.**bre**.co.uk	**A+**, according to the Green Guide to Specification, 4th Edition 2009.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	no. per pack	no. per slice	weight kg per pack GB	weight kg per pack NI/ROI
Lansdowne	215 x 100 x 65	Autumn Gold, Burren, Charcoal, Cottage Red, Gold, Heather, Warm Red	Yes	480	96	1369	1360

Autumn Gold

Burren

Cottage Red

Heather

Warm Red

Charcoal

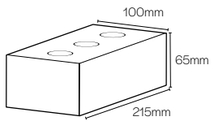
Gold

Kingston

Versatile, smooth facing brick.

The sophisticated Kingston Facing Bricks, are manufactured with a smooth vibrant finish. With eight colour options, ranging from vivid red and gold tones to understated grey and stone shades, Kingston is suitable for any type of application.

- Manufactured with a smooth, sophisticated surface
- Vibrant long-lasting colours
- Suitable for both modern or period properties



Size

Ef-Stop®

Kingston

S
Smooth
Finish

BIM
Level 2

Specification

Ef-Stop

Product type	Concrete Facing Brick
Manufactured to	BS EN 771-3:2011
Brick type	Perforated (3 holes per brick)
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >22N/mm²
Shrinkage (Moisture Movement)	0.64mm/m
Weight	2.7kg per brick (average)
Durability (Freeze/Thaw)	F2 (Severe Exposure)
Tolerances	Category D1
Reaction to fire	A1
Water absorption by capillary	2 g/m²s
Water absorption	<7% water absorption on average
Soluble Salts	S2
Net dry density	2220 kg/m³
Gross dry density	1930 kg/m³
Shear bond strength	0.15N/mm²
Thermal Conductivity	Protected 1.59W/m K Exposed 1.70 W/m K
Mortars & Expansion Joints	Refer to BS 5628-3:2005
Bed Reinforcement	Refer to BS 5628-3:2005
Specials	Range of complementary brick specials are available
Installed to	BS 5628-3:2005
NSS	**Plus** F10 215 **Create** 45-80-50/302
Applications	Please refer to Table 15 of PD 6697: 2010. For further details please refer to www.tobermore.co.uk
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 8%
Carbon footprint	22kgCo²e/m²
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**A+**, according to the Green Guide to Specification, 4th Edition 2009.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	no. per pack	no. per slice	weight kg per pack GB	weight kg per pack NI/ROI
Kingston BIM	215 x 100 x 65	Autumn Gold, Burren, Charcoal, Cottage Red, Gold, Moorland, Warm Red	YES	440	44	1220	1220
		Ebony	SO				

BIM - This product is available to download from our website in BIM Level 2 format.

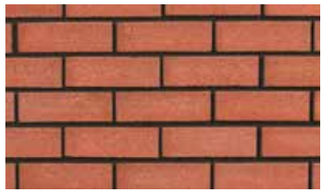
Autumn Gold

Burren

Cottage Red

Moorland

Warm Red



Charcoal

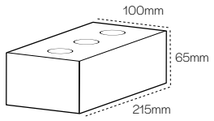
Gold

Ebony

Engineering Quality Concrete Brick

Versatile & cost-effective, suitable for heavy-duty environments.

- Manufactured from dense aggregates
- Provides durability and high strengths
- Offers frost resistance and low water absorption



Size

Ef-Stop

Specification

Ef-Stop

Product type	Engineering quality concrete brick
Manufactured to	BS EN 771-3:2011
Brick type	Perforated (3 holes per brick)
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of > 50N/mm² mean (Air Dry)
Shrinkage (Moisture Movement)	0.40mm/m
Weight	3kg per brick (average)
Durability (Freeze/Thaw)	F2 (Severe Exposure)
Tolerances	Category D1
Reaction to fire	A1
Water absorption by capillary	2 g/m²s
Water absorption	<7% water absorption on average
Soluble Salts	S2
Net dry density	2270 kg/m³
Gross dry density	2030 kg/m³
Shear bond strength	0.15N/mm²
Thermal Conductivity	Protected 1.62W/m K Exposed 1.31 W/m K
Mortars & Expansion Joints	Refer to BS 5628-3:2005
Bed Reinforcement	Refer to BS 5628-3:2005
NBS	**Plus** F10 385 **Create** 45-80-50/302
Applications	Please refer to BS 5628-3:2005 for guidance. These bricks are not suitable for use as a DPC and should not be used when industrial effluents or acids are present.
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 10%
Carbon footprint	22kgCo²e/m²
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**A+**, according to the Green Guide to Specification, 4th Edition 2009.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	no. per pack	no. per slice	weight kg per pack GB	weight kg per pack NI/ROI
Engineering Quality Concrete Brick	215 x 100 x 65	Charcoal, Red	YES	440	44	1300	1300

Red

Charcoal

IMPORTANT INFORMATION

If using Tobermore Engineering Quality Concrete bricks in conjunction with other walling products (e.g. clay bricks) we would recommend that you refer to the general mechanical properties (including movement/shrinkage) of both products to ensure they are compatible. Your project engineer will be able to provide advice on this.

NOTE: Produced for utility purposes - colour consistency and product finish will not be up to the same standard as Lansdowne and Kingston

Country Stone

Rugged stone effect.

Country Stone has a nostalgic appearance, with a rugged finish emulating the distinct aesthetics of natural stone.

- Emulates natural stone
- Vibrant long-lasting colours
- Creates a classic, vintage look

Ef-Stop®

375 x 100 x 140mm

240 x 100 x 140mm

225 x 100 x 140mm

200 x 100 x 140mm

160 x 100 x 140mm

Sizes (all in one pack)

375 x 100 x 65mm

300 x 100 x 65mm

225 x 100 x 65mm

375 x 100 x 140mm

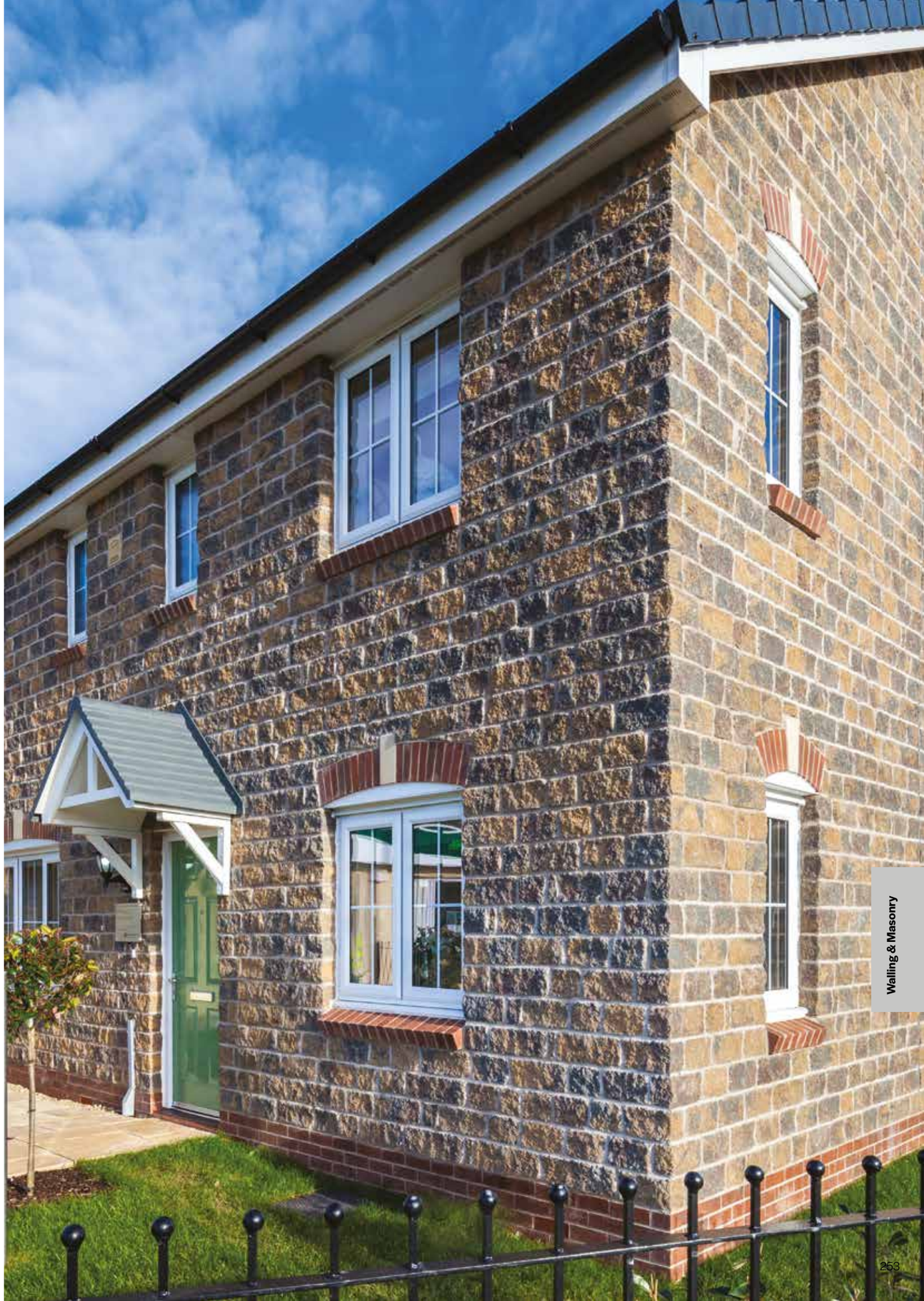
300 x 100 x 140mm

225 x 100 x 215mm

440 x 100 x 215mm

300 x 100 x 215mm

Sizes (individual)



Country Stone

SF
Split Face
Finish

BIM Level 2

Heather

Bracken

Slate

Cedar

Specification

Ef-Stop®

Product type	Concrete Block
Manufactured to	BS EN 771-5:2011
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of > 20N/mm² mean
Installed to	BS 5628-3:2005
Shrinkage (Moisture Movement)	0.41mm/m
Durability (Freeze/Thaw)	F2 (Severe Exposure)
Tolerances	Category D1
Reaction to fire	A1
Water absorption by capillary	3g/ (m² x s)
Water absorption	<7% water absorption on average
Water vapour diffusion coefficient	30/100 μ
Net dry density	2210 kg/m³
Gross dry density	2200 kg/m³
Shear bond strength	0.15N/mm²
Thermal Conductivity	Protected 1.25W/m K Exposed 1.43W/m K
Mortars & Expansion Joints	Refer to BS 5628-3:2005
Bed Reinforcement	Refer to BS 5628-3:2005
NSS	**Plus** F10 295 **Create** 45-80-50/322
Applications	Above ground, main external wall construction, boundary walls, columns and partitions.
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 5%
Carbon footprint	36kgCo²e/m²
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam **rating** www.**bre**.co.uk	**A+**, according to the Green Guide to Specification, 4th Edition 2009.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Country Stone (single course mixed length) (all sizes in one pack)	375 x 100 x 140 225 x 100 x 140 160 x 100 x 140 240 x 100 x 140 200 x 100 x 140	Bracken, Heather, Slate	YES	6.72	1.34	40 40 40 40 40	1560	1560
Country Stone (single sizes) **BIM**	375 x 100 x 65	Bracken, Slate	YES	6.44	0.59	264	1460	1460
		Cedar	SO					
	300 x 100 x 65	Bracken, Slate	YES	6.86	0.62	352	1540	1540
		Cedar	SO					
	225 x 100 x 65	Bracken, Slate	YES	5.15	0.47	352	1150	1150
		Cedar	SO					
	375 x 100 x 140	Bracken, Slate	YES	6.3	1.26	120	1456	1456
		Cedar	SO					
	300 x 100 x 140	Bracken, Slate	YES	6.72	1.34	160	1546	1546
		Cedar	SO					
	225 x 100 x 140	Bracken, Slate	YES	5.04	1.01	160	1147	1147
		Cedar	SO					
	440 x 100 x 215	Bracken, Slate	YES	6.05	1.51	64	1357	1357
		Cedar	SO					
	300 x 100 x 215	Bracken, Slate	YES	6.19	2.06	96	1428	1428
		Cedar	SO					
Country Stone Coping	208 x 300 x 80	Bracken, Heather, Slate	YES	-	-	128	1416	1416
		Cedar	SO					

BIM - This product is available to download from our website in BIM Level 2 format.

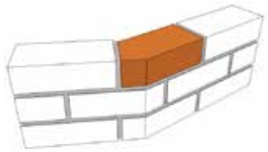
Specials

Lansdowne & Kingston.

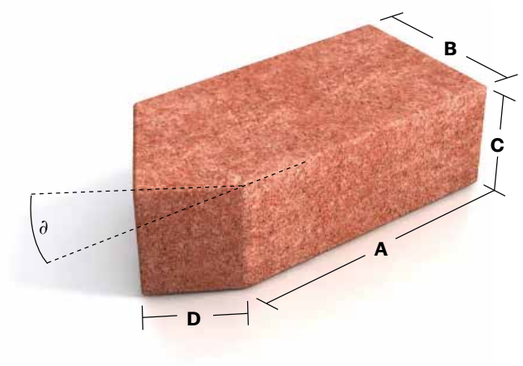
- Specials comply with the same physical tests as Tobermore's standard bricks
- Designed to co-ordinate with metric format bricks (215x100x65mm)
- Vibrant long-lasting colours

Ef-Stop

Squint L1

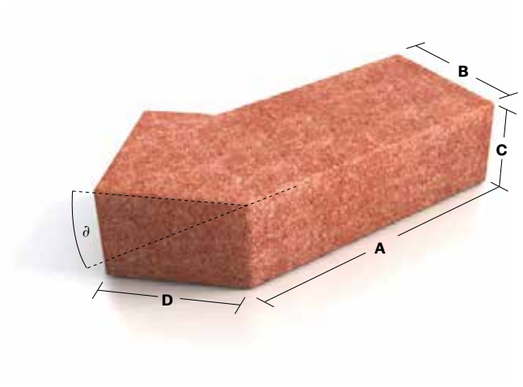


Type	A	B	C	D	∂
L1.1	167	103	65	54	30⁰
L1.2	164	103	65	51	45⁰
L1.3	181	103	65	68	60⁰



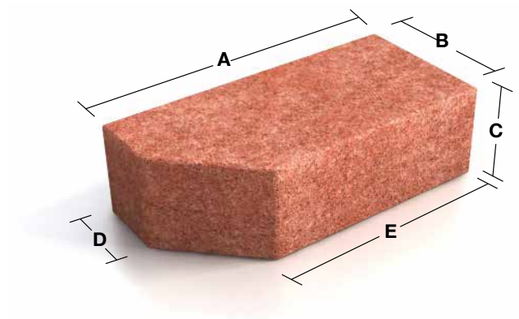
Dog leg L2

Type	A	B	C	D	∂
L2.1	59	103	65	103	45⁰
L2.2	59	103	65	103	60⁰
L2.3	215	103	65	103	30⁰
L2.4	215	103	65	103	45⁰
L2.5	215	103	65	103	60⁰



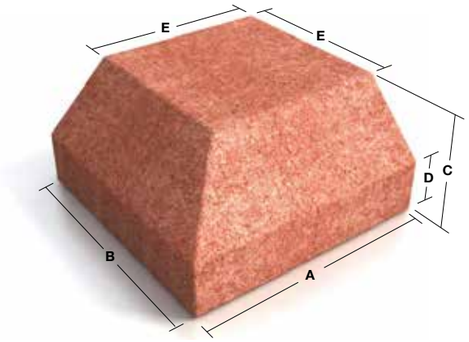
Single cant L3

Type	A	B	C	D	E
L3.1	215	103	65	47	159
L3.2	215	103	65	60	172

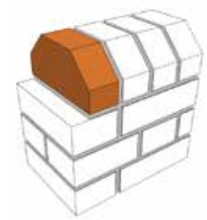


Single cant external return L4

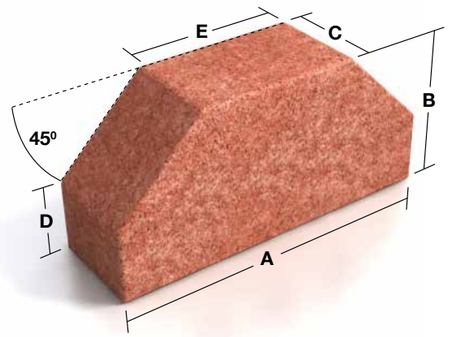
Type	A	B	C	D	E
L4.1	215	215	103	47	159
L4.2	215	215	103	60	172



Double cant L5

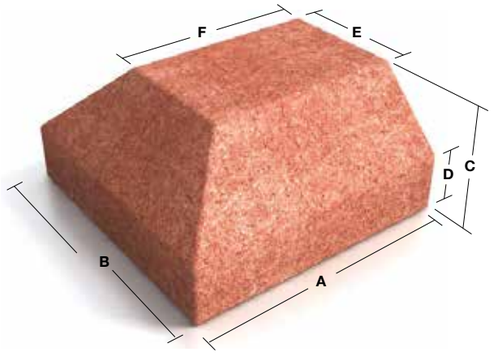


Type	A	B	C	D	E
L5.1	215	103	65	47	103
L5.2	215	103	65	60	129



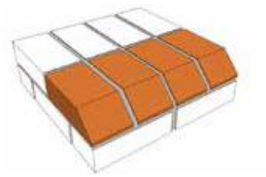
Specials

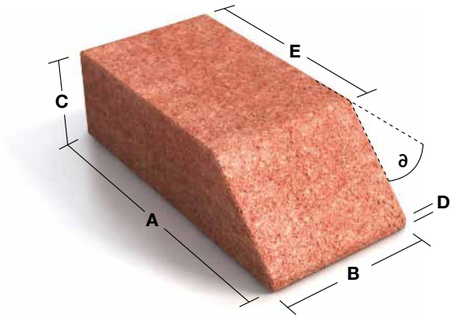
Double cant stop end L6



Type	A	B	C	D	E	F
L6.1	215	215	103	47	103	159
L6.2	215	215	103	60	129	173

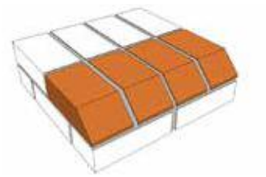
Plinth header L7

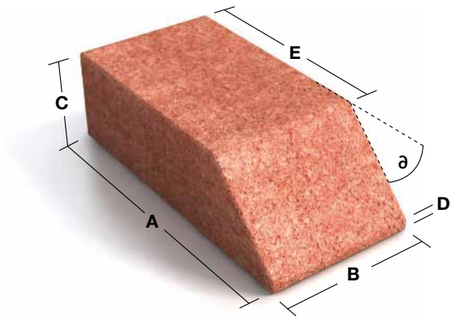




Type	A	B	C	D	E	∂
L7.1	215	103	65	8	159	45º
L7.2	215	103	65	22	172	45º

Plinth stretcher L8

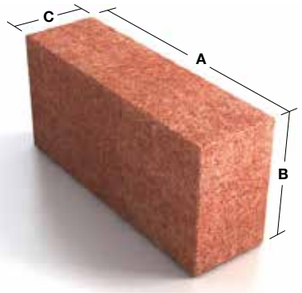




Type	A	B	C	D	E	∂
L8.1	215	103	65	8	47	45º
L8.2	215	103	65	22	60	45º

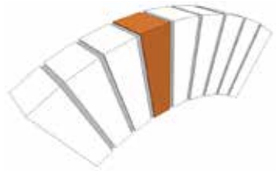
Brick closer/end block L9

Type	A	B	C
L9.1	215	103	65



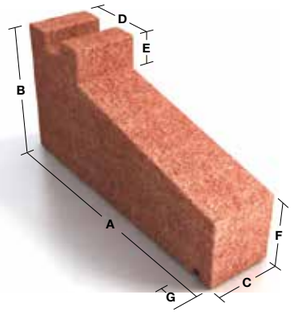
Arch radical L10

Made to suit dimensions supplied by customer.



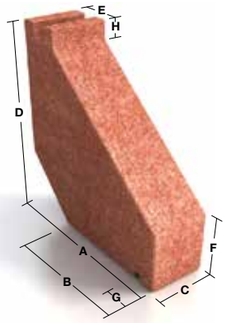
Cill brick L11

Type	A	B	C	D	E	F	G
L11	276	140	65	87	34	66	28



Cill brick L12

Type	A	B	C	D	E	F	G	H
L12	215	148	65	215	53	65	28	20



Technical Information

Walling & Masonry

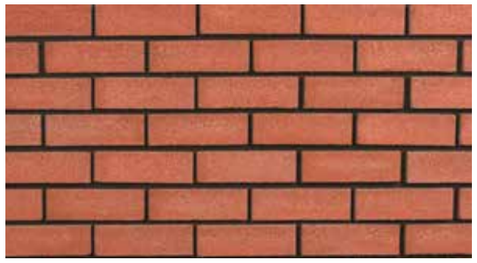
Important Information
Any technical information provided by Tobermore in relation to any product (whether before or after order) is provided by way of GUIDANCE ONLY and, to the fullest extent permitted by law, without liability on the part of Tobermore for any loss or damage suffered as a result of relying upon it.

Such technical information should not be relied upon in substitution for obtaining independent expert advice prior to using any product from both a suitably qualified engineer and building contractor, in particular, as to the suitability of the product for use at the intended site for the intended scheme.

BS 5628-3:2005	Code of practice for the use of masonry. Materials and components, design and workmanship.
Note	BS guidelines are subject to change and therefore you should refer to www.bsigroup.com for the latest version.

Walling and masonry are established products in the construction industry and have a number of British Standards (BS) dedicated to ensure they are professionally installed. Refer to the following relevant BS guidelines for detailed information. Tobermore recommend a maximum of 6mm for movement joints when used with the correct mortar and design principles in accordance with BS5628 and PD6697

Vibrant long-lasting colours*
Tobermore only use high quality Iron Oxide pigments, (which are made to BS EN 12878), to produce our strong, vibrant and deep colours. Our state-of-the-art equipment makes our products extremely dense thus ensuring that our colours remain intact for very long periods. For example when we examine products which are 10 years old we can see that the colour retention is excellent. Tobermore would recommend that to maintain the colour and quality of product a regular maintenance programme is carried out on all projects.



Installation - All products should be installed in accordance with the latest British Standard.

FOR FACING BRICK PRODUCTS
(Kingston & Lansdowne)

Installation – Facing Bricks

Concrete bricks have been an established, if small part, of the market for bricks in the UK for well over one hundred years. In 1948, George Bessey of the Building Research Station wrote "The beginnings of the concrete brick industry are vague". They are related to those for concrete blocks which, although first patented in 1850, did not become properly established until about 1910 and expanded rapidly in the period between the wars. Concrete bricks are made from a mixture of Ordinary Portland Cement (OPC) and aggregate which is tamped or vibrated into molds and subsequently cured at ambient temperature, or in steam, at atmospheric or higher pressures.

British Standard

Concrete bricks are made to comply with BS EN 771-3: 2011 + A1: 2015 which is the Specification for Masonry Units Part 3 Aggregate Concrete Masonry Units (Dense and Lightweight Aggregates). The Specification applies to all aggregate concrete masonry units, i.e. bricks and blocks in UK terminology. Tobermore concrete bricks are nominally 215mm long, 100mm wide (thick) and 65mm high, and comply with the traditional UK definition.

Declaration of Performance
Compliance with the Specification BS EN 771-3: 2011 + A1: 2015 is demonstrated by Tobermore producing a Declaration of Performance (DoP) for each brick type. This document, which is available on the Tobermore website www.tobermore.co.uk) lists the properties of the product as required by the Specification, e.g. compressive strength, dimensions and density are all given by Tobermore in a legal declaration. The CE mark, which gives the same information, accompanies the product and signifies that the declaration has been made and consequently the bricks meet the legal requirements for sale in all of the countries in the European Single Market.

Design Guidance
The way in which the designer uses the declared information and the way the builder constructs the brickwork are covered by guidance in other relevant documents. Key to this is the European Code of Practice, Eurocode 6 - Design of Masonry Structures. This comes in the following parts:

1.1 General Rules for Reinforced and Unreinforced Masonry (BS EN 1996-1-1)
2.1 General Rules - Structural Fire Design (BS EN 1996-1-2)
3.1 Design Considerations, Selection of Materials and Execution of Masonry (BS EN 1996-2)

A further part, Part 3: Simplified Calculation Methods for Unreinforced Masonry Structures exists, but gives very conservative designs and its use is not encouraged in the UK. The Eurocode covers all masonry construction throughout Europe but because of the widely varying traditions, it cannot do that in detail. Consequently, a lot of the detail which is relevant to the UK is given in Published Document; Recommendations for the Design of Masonry Structures to BS EN 1996-1-1 and BS EN 1996-2, PD 6697: 2010.

Whilst there is much that is helpful in the official guidance, manufacturers' recommendations should be followed in order to achieve successful results.

The Difference Between Concrete and Clay Facing Bricks
Tobermore facing bricks are used to provide the appearance of the building, this is generally not the case with concrete blocks, and there are important differences between concrete and clay bricks. All masonry units expand or contract to some extent due to temperature and moisture effects. Clay masonry units respond to changes in temperature, they demonstrate a small reversible movement due to wetting and drying but importantly demonstrate a long term irreversible expansion as they adsorb water from the atmosphere. On the other hand, concrete bricks shrink as they dry out. The way to deal with this in concrete brickwork is to subdivide walls into smaller panels by introducing movement joints which should be provided at intervals between 6m and 9m. The length to height ratio of panels should not exceed 3:1. It is also important to not allow concrete bricks to become excessively wet before they are laid, or for new brickwork to do so before it is adequately protected by good architectural details.

There are other differences between concrete and clay units, e.g. Tobermore facing bricks are very consistent in size and hence the brickwork has a regular, precise appearance which, although possible with some clay bricks, is not with others due to natural variability in size due to the making, drying and firing processes. The Tobermore Lansdowne range differ in that although the bricks are consistent in size, they are tumbled which gives softer edges. Concrete bricks have a density towards the top of the range of that for clay bricks and hence weight may be an issue in relation to dead load or for support by scaffolding.

Design for Movement

The provisions of the Eurocode for masonry are written as a principle followed by a series of application rules to achieve the principle. In the case of movement, the principle is:

"The possibility of masonry movement shall be allowed for in the design such that the performance of the masonry in use is not adversely affected by such movement."

The way of achieving this situation is by the use of movement joints as described earlier to subdivide large areas of brickwork into smaller panels such that in particular shrinkage of the brickwork does not allow sufficient tension to build up in the wall that it cracks. In particular, long low panels are to be avoided. The maximum spacing of movement joints is a national matter and the National Annex to BS EN 1996-2 recommends a value of 9m for concrete brickwork with the provision that it may be less if the length: height of the sub-panel created exceeds 3:1. In practice, movement joints are often spaced at 6m - 9m as recommended in PD6697. Tobermore recommend a maximum spacing of 6m.

The following illustrations show some situations where cracking can occur and how it can be alleviated by the introduction of movement joints.

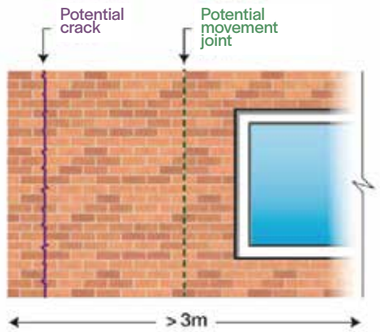


Fig.1: Corners are very stiff joints. A run of brickwork more than half the minimum allowance can lead to cracking near to the corners.

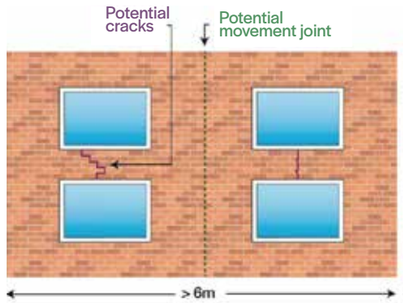


Fig.2: A long uninterrupted run of brickwork between upper and lower windows can lead to cracking at the smallest height, i.e. between the windows either as shown or from the corners of the windows. Cracks may be vertical or stepped – they follow the line of least resistance.

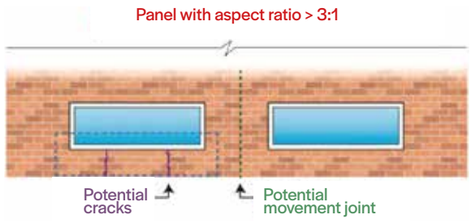


Fig.3: Long, low panels (> 3:1 ratio) should be avoided. These panels shrink between the more heavily loaded brickwork between the windows.

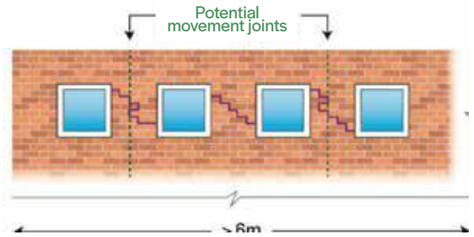


Fig.4: Long runs of uninterrupted brickwork, especially when vertical loading is low, can lead to diagonal cracking of narrow brickwork panels between window openings.

Current guidance focuses on ensuring movement joints are located where they are needed in relation to interaction with other structural elements, restraints, corners, etc. and is based upon experience rather than calculation. Movement joints in concrete brickwork should not be less than 10mm thickness. They must, of course, be free from mortar. Joints in clay masonry are primarily used to control expansion and hence the compressibility of any filler is important. In concrete masonry, the principle effect is shrinkage and relatively incompressible materials such as hemp, fiberboard and cork can still be used. The joints must be sealed with a sealant that will resist rain penetration and a guide to the selection of sealants is given in BS 6213.

Durability

Although durability is covered in the Specification for Concrete Bricks (BS EN 771-3: 2011 + A1: 2015) it is rather unsatisfactory from the user point of view. The manufacturer is required to declare the freeze thaw resistance by reference to the provisions valid in the place of use until an appropriate European Standard is available. There were no requirements in the previous Standard, BS 6073-1: 1981 and durability is dealt with by Code of Practice guidance. At the European level, this is limited. Where masonry is exposed to moisture, wetting, or extreme wetting and freeze thaw cycling, but excluding exposure to external sources of significant levels of sulfates or aggressive chemicals, the bricks are required to be freeze thaw resistant. In more aggressive situations, the guidance is to consult the manufacturer. PD 6697 is more helpful and contains a table describing the various locations in buildings. For each location, the minimum compressive strength of a concrete brick that is suitable for that location, together with a minimum mortar classification is required. The only exception to this is that concrete bricks are not considered to be suitable to act as masonry DPC's.

Table 15 in PD 6697 is useful; however there are seven different minimum brick compressive strengths for the various locations. Tobermore facing bricks and engineering quality bricks are declared as frost resistant. In this context, this means that Tobermore facing bricks are suitable for all locations except cappings, copings, sills, earth retaining walls without waterproofing on the retaining face, or in foul drainage. Tobermore engineering quality concrete bricks can be used in all locations with the appropriate mortar.
Although not covered in BS EN 771-3, concrete bricks do not contain soluble sulfates and hence the reference in the Eurocode is to sulfates from external sources. In these circumstances, the manufacturer's advice should be sought.

Resistance to Rain Penetration
The principal guidance on the design and detailing of walls is given in PD 6697. This covers the thickness of single leaf walls and cavity walling, including reference to a minimum air space and the introduction of cavity insulation.

The guidance is comprehensive and authoritative. There are no specific provisions that one would make for concrete brickwork. Concrete and clay brickwork are dealt with in the same way.

Selection of Mortars

In general, the common guidance for the selection of mortars in most situations is to use a mortar that is no stronger than is required for structural or durability reasons. This is relevant to concrete brickwork as these are susceptible to drying shrinkage and if this were to cause cracking, it is far preferable that it is contained within the joints. It may then be viewed as negligible or relatively easy to repair by raking out and repointing.

The selection of mortars for durability is covered in table 15 of PD 6697 and for most situations in facing masonry a mortar with compressive strength class M4 is suitable. This is a mortar which would be expected to achieve a compressive strength of 4N/mm2 after 28 days. A mortar prescribed by its mix of constituents by volume considered to be equivalent to an M4 mortar would be a 1:1:5-6, cement:lime:sand mortar, the range of proportions of the sand content reflecting its grading. Exceptions to the use of strength class M4 are work near to ground level or in earth retaining structures. In those situations, an M6 or even M12 might be used with a quality engineering brick. Where concrete brickwork is being used in structural situations, the engineer will select a mortar such that the strength when used with the facing or engineering quality brick will achieve the compressive, flexural and shear strength in the brickwork that is required according to the provisions of Eurocode 6, BS EN 1996 1-1.
Tobermore concrete facing bricks meet the minimum strength requirements for all dwellings constructed using Approved Document A of the Building Regulations and BS 8103-2: 2013 Structural Design of Low Rise Buildings, Part 2: Code of Practice for Masonry Walls for Housing. The mortars should be selected using table 15 of PD 6697 but will generally be an M4 strength class (lower classes are not permitted).

Workmanship
Good site practice for the use of Tobermore concrete bricks is no different to that for clay bricks. The only issue worthy of comment is that of adjusting the suction of concrete bricks which is better solved by using a water retentive additive in the mortar. However, the suction of Tobermore concrete bricks is low and this is unlikely to be an issue. The appearance of facing brickwork can be ruined by lack of care on site. In particular care is needed to avoid mortar adhering to the brick face and guidance on good practice is given in 'Good Practice Guide - Facing Bricks' which is available from Tobermore. Normal considerations of good practice include:

- Masonry materials should be stored in dry conditions. Polythene wrapping provides protection from the weather. If this is removed it should be replaced or alternative protection needs to be provided.
- Tobermore concrete bricks should be laid on a full bed of mortar with all cross joints filled and vertically aligned.
- No lift should exceed 1.5m in height in a single day.
- The joint profile should be finished to the specified profile.
- Newly constructed brickwork should be protected from excessive drying out, rain and frost. If new brickwork is not protected efflorescence, patchy mortar colour and staining can occur.
- Tobermore concrete brickwork should not be built in temperatures below 3C and frozen materials should not be used. Facing bricks should be constructed in areas that are greater than 10m away from de-icing salts.

Additional guidance can be found in BS EN 1996-2 and PD 6697. Manufacturers' recommendations should always be followed and further more detailed guidance is available from Tobermore on request.

FOR COUNTRY STONE PRODUCTS
Installation - Country Stone
Tobermore's Country Stone products are designed to recreate traditional stone sizes and to co-ordinate with standard cavity wall construction. When used in housing projects, a clear cavity must be retained.
All work must be protected during construction and must be designed and built in accordance with accepted industry standards and practice. Builders familiar with conventional brickwork will find that similar installation principles apply.

Joints can be finished flush or tooled depending on the overall effect required. Raked joints are not recommended. It is vital that all horizontal and vertical joints between Country Stone blocks must be compacted and free from voids. Shell bedding should not be used.

Movement Joints and Mortar Guidance

- NHBC recommends that walls constructed of concrete facing bricks should have vertical movement joints included every 6m to allow for drying/shrinkage, see PD6697:2010 section 6.2.6.3.4, maximum ratio for brickwork panels is to be 3:1 length : height. PD6697:2010 section 6.2.6.4 gives advice on joint positions, the benefit of brickwork reinforcement at window openings is covered in section 6.2.6.7 of the same document. Movement joints should be planned prior to commencing any construction to enable them to be concealed behind down pipes etc. and ensure the aesthetic of the building is maintained.
- It is important to ensure that the mortar specified for the construction is suitable for the contract, see table 15 of PD6697:2010 - class M4 is the maximum recommended for normal external facing brick walls. This should not be exceeded when using Tobermore Concrete facing bricks
- We would recommend that you discuss this guidance with all parties involved in the design, construction and installation of this scheme. We also recommend that you refer to BS EN 1996-1-1 and PD6697:2010.
- Specific professional advice should be obtained at all times before commencing building work.

Maintenance

Routine cleaning and maintenance is required to keep the overall appearance of products in pristine condition.

Good Practice during Construction

- If mortar dries on the surface of the bricks it will stain the product and may not be removed.
- Mortar extruding from joints should be removed when the mortar is wet and during the process of laying.
- Any mortar smears on the brick surface should be removed by dry or wet brushing.
- Scaffolding should be installed as per regulatory instructions. Please note that mortar can drop and hit the scaffolding and then also go onto the wall. You should inspect the work area at all times to ensure the brick surface remains mortar free.
- When it rains be careful that any wet mortar on the scaffolding does not get 'splashed' onto the wall.
- When work stops or is interrupted by inclement weather conditions, brickwork should be protected immediately with polythene sheeting that is held in place with a suitable fixing. If new brickwork is not protected efflorescence, patchy mortar colour, patchy brickwork and staining can occur.
- Bricks should always be covered with polythene sheets to avoid getting damp or dirty when not being used.

General Cleaning Advice

- It is always important to keep bricks as clean as possible while laying and tooling. See Good Practice above.
- If mortar has been allowed to dry on the surface of the bricks the options you have to clean it off are as follows; Each process should be tested first and should ensure the facing bricks are not damaged - **a.** Dry brushing **b.** Wet brushing **c.** Using a 'like coloured' brick to rub the stained brick **d.** Pressure washing - should only be used as a last resort as it will damage the surface and the mortar joint if not completed correctly (this method cannot be attempted until the area has been allowed to set for a minimum of 7 days)
- Acid cleaning should be avoided

Instructions and warnings
Refer to page 289

Secura Walling

Product Range

Secura Grand 266

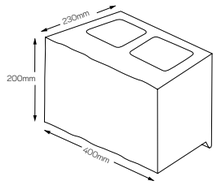
Secura Lite 270

Technical Information 274

Secura Grand

Mortar-free retaining wall.

Secura Grand Retaining wall blocks have a smart, heritage feel. Classic and textured in appearance, these retaining wall blocks evoke the elegance of walled gardens and heritage architecture and will bring character to any project.



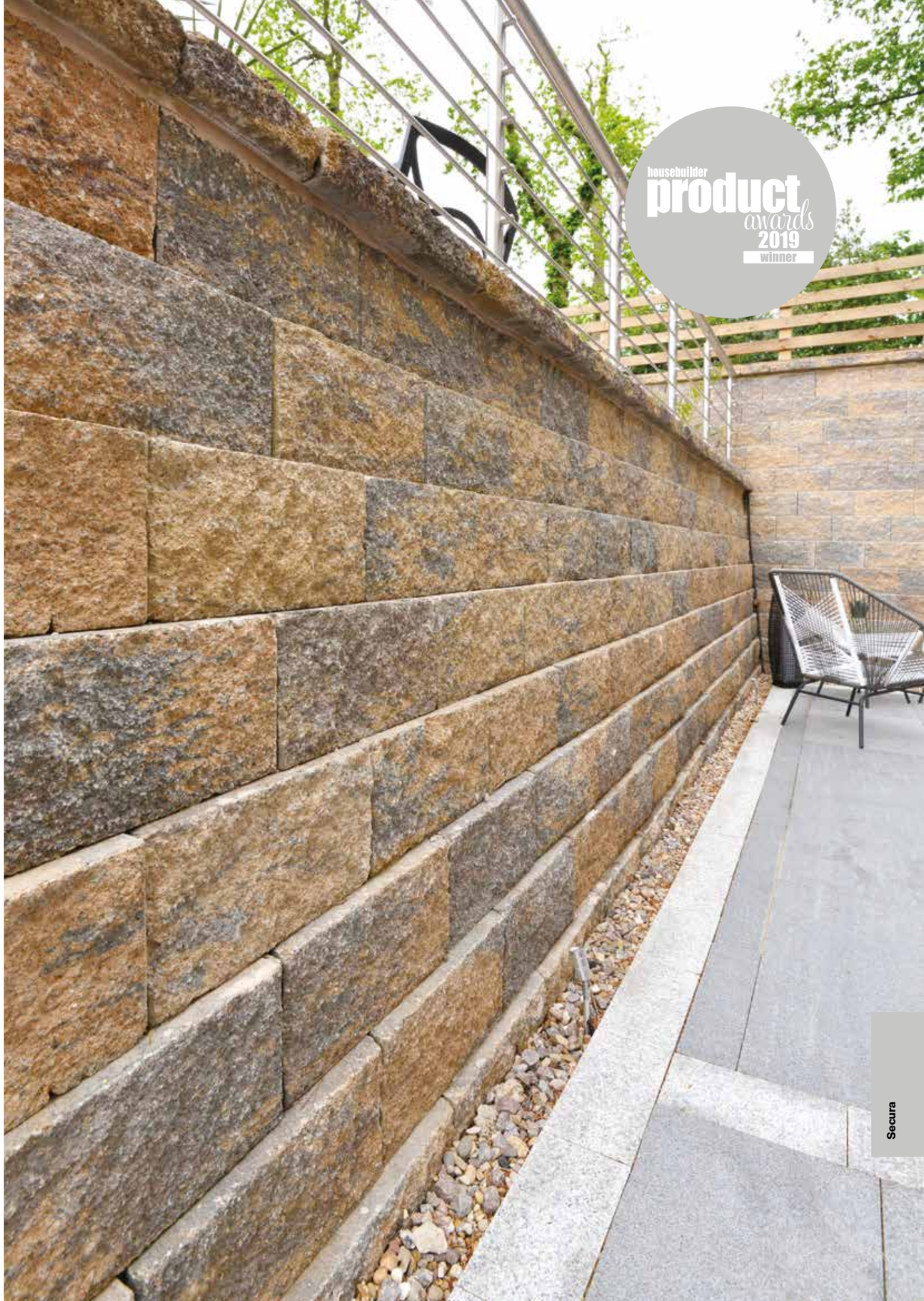
Size

- Fast to build
- Cost effective
- Engineered for strength
- Vibrant long-lasting colours
- Can be combined with Geogrid to form reinforced soil walls for retaining structures

Ef-Stop®

BBA APPROVAL INSPECTION TESTING CERTIFICATION
CERTIFICATE 15/H230

HAPAS



Secura Grand

A
Aged
Finish

Specification

Ef-Stop

Product type	Concrete Block
Manufactured to	BS EN 771-3:2011
Surface finish	Processed to give aged appearance
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >30N/mm²
Design and Installation to	BS 8002:2015
NBS	**Plus** D41 310 **Create** 45-25-66/320
Applications	Can be built as a gravity, engineered reinforced or concrete backfilled retaining wall. Please refer to Tobermore's Secura Grand installation guidelines or consult with Tobermore for design advice.
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 10%
Carbon footprint	5kgCo²e/ea
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	Refer to the Green Guide to Specification, 4th Edition 2009.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 quality, Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

housebuilder product awards 2019 winner

Stock

product	size (mm)	colours available	in stock	m² per pack	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Secura Grand	400 x 230 x 200	Bracken, Heather, Slate	YES	3.84	12.5	48	1288	1288
Secura Grand Corners	430 x 230 x 200	Bracken, Heather, Slate	YES	-	-	48	1464	1464
Secura Coping	300/235 x 330 x 70 (tapered coping)	Bracken, Heather, Slate	YES	-	3.77LM	99	1415	1403

Heather

Bracken

Slate

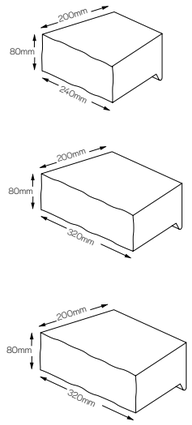
Secura Lite

Mortar-free retaining wall.

Secura Lite has an antique feel, and a warm aged finish. The combination of block widths available, produce a traditional, random stone appearance.

- Easy to build
- Used mainly in domestic applications
- Features a unique aged finish
- Available in a combination of three block widths
- Creates a random stone appearance
- Vibrant long-lasting colours

Ef-Stop®



Sizes
All three sizes in one pack

Secura Lite

SF
Split Face
Finish

Specification

Ef-Stop

Product type	Concrete Block
Manufactured to	BS EN 771-3:2011
Surface finish	Processed to give aged appearance
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >30N/mm²
Design and Installation to	BS 8002:2015
NSS	**Plus** D41 310 **Create** 45-25-66/320
Applications	Low height gravity retaining wall solution for walls up to a maximum of 960mm high. Please refer to Tobermore's Secura Lite installation guidelines.
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 6%
Carbon footprint	1.6kgCo²e/ea
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam **rating** www.**bre**.co.uk	Refer to the Green Guide to Specification, 4th Edition 2009.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	colours available	in stock	LM per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
Secura Lite (all three sizes in one pack)	320 x 200 x 80 280 x 200 x 80 240 x 200 x 80	Bracken, Heather, Slate	YES	33.6	0.84	44.64	40 40 40	1121	1121
Secura Lite Coping	310/255 x 240 x 70 (tapered coping)	Bracken, Heather, Slate	YES	-	-	3.5LM	120	1316	1316

Heather

Bracken

Slate

Technical Information

Secura Retaining Walls

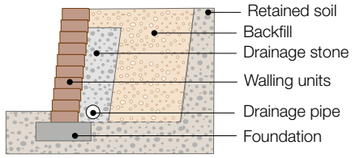
Important Information
Any technical information provided by Tobermore in relation to any product (whether before or after order) is provided by way of GUIDANCE ONLY and, to the fullest extent permitted by law, without liability on the part of Tobermore for any loss or damage suffered as a result of relying upon it.

Such technical information should not be relied upon in substitution for obtaining independent expert advice prior to using any product from both a suitably qualified engineer and building contractor, in particular, as to the suitability of the product for use at the intended site for the intended scheme.

Methods of Construction
There are 3 common types of retaining wall systems; gravity, reinforced and concrete backfill.

Gravity Retaining Walls

A gravity retaining wall relies on the weight and setback of the blocks to withstand the pressure being exerted on it from the soil behind. Gravity walls are ideal for low height retaining walls. Guidelines available on our website.

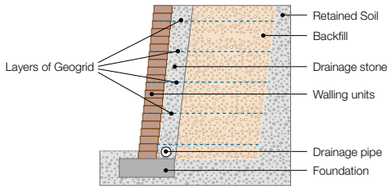


Suitable Secura products
Secura Lite (maximum gravity wall height 960mm)
Secura Grand (maximum gravity wall height 1.2m)

Geogrid

A geogrid reinforced retaining wall uses layers of geogrid which are placed between the backfill material to create a soil mass behind the wall. These types of walls are generally used in taller walls and are designed by a qualified engineer. Guidelines available on page 9.

Note
For geogrid reinforced retaining walls please use the correct strength of geogrid as specified on the design. For geogrid reinforced retaining walls designed for Road and Bridge projects in accordance with the BBA requirements Huesker Fortac geogrids must be used. No substitutes are allowed. These are available from Tobermore.

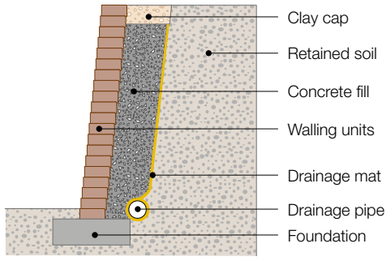


Suitable Secura products
Secura Grand

Concrete Backfill

Where there is insufficient space behind the wall to construct a geogrid reinforced retaining wall the preferred solution is to construct a concrete backfilled retaining wall. This method involves filling the voids in the blocks and the area behind the blocks and the excavated earth with structural backfill material (concrete).

The concrete backfill creates a large structural mass behind the wall and connects to the Secura blocks. This method of construction greatly reduces the amount of excavation required on site and also facilitates the drainage. Guidelines available on our website www.tobermore.co.uk.

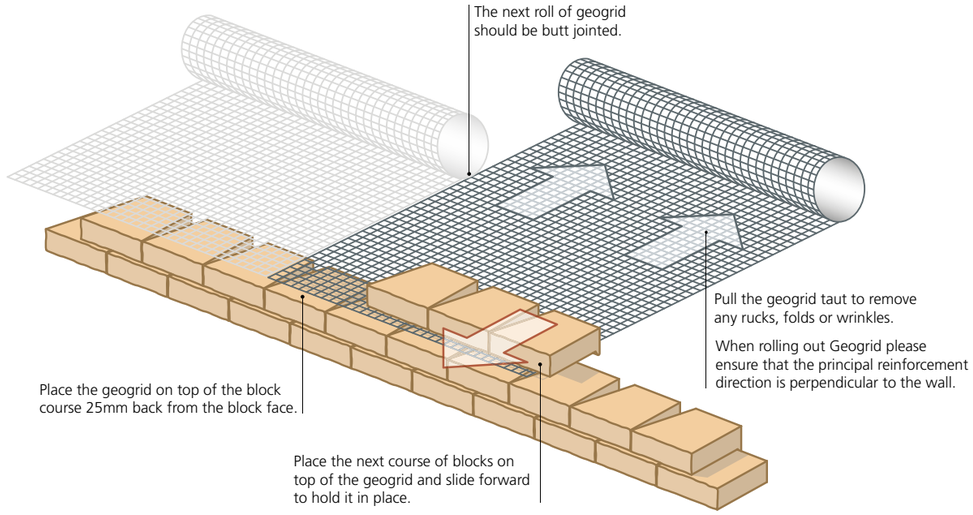


Suitable Secura products
Secura Grand

Drainage, Geogrid & Backfill Guidelines

Drainage

1. Lay a drainage pipe at the back of the wall and cover with drainage aggregate, maximum stone size 20mm.



Geogrid

1. Place the Geogrid on top of the block at the specified course ensuring that the edge is 25mm back from the front of the block.
2. Roll out Geogrid ensuring that the principal reinforcement direction is perpendicular to the wall. Also ensure that the Geogrid is butt joined and never overlapping. Cut geogrid to required length.
3. Place the next course of blocks on top of the Geogrid and slide forward to hold in place.
4. Further courses of blocks may be placed in position up to the next specified Geogrid course.
5. Lay the Geogrid on top of the compacted backfill, ensuring that it is lying flat on the backfill. Pull the Geogrid taut to remove any rucks, folds or wrinkles.
6. Continue building the wall, placing the Geogrid and compacting the backfill as above to the required height

Backfilling

1. Place the supplementary backfill on the Geogrid and spread it out away from the wall, leaving a gap of 150mm - 300mm between the wall and the supplementary backfill.
2. Fill the gap between the wall and the compacted layer with drainage aggregate, maximum stone size 20mm.
3. Compact the supplementary backfill in 250mm layers, working from the wall towards the rear of the Geogrid.
4. Compaction by plate vibrator is recommended. Vibrating or static rollers should not be used within 1 metre from the back of the wall. Compacting specifications can be obtained from Tobermore.

Notes:
The above diagram illustrates the construction of straight walls using Geogrid. (For the construction of curved walls contact Tobermore)

Instructions and warnings Refer to page 289

AirClean paving utilises revolutionary technology to oxidise and breakdown Nitrogen Dioxide. The photocatalytic concrete uses nanotechnology and sunlight to transform harmful NO_2 into harmless nitrates that are washed away by the rain.

Product Range

AirClean Braemar	278
AirClean Fusion	280
AirClean City Pave VS5	284
AirClean Mayfair Flags	286
Technical Information	288

AirClean Paving

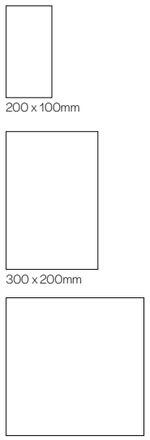
AirClean Braemar

A high performance paving range with the aesthetic appeal of natural granite.

Braemar with AirClean combines this environmentally friendly feature with Braemar's advanced PrimeTop construction. Diamond ground aggregate finishes are ideal for use in projects requiring a superior paving solution.

- Improves air quality by reducing harmful NO_2
- Transforms NO_2 into harmless nitrates
- Tried and tested photocatalytic technology
- Manufactured with natural granite aggregates
- Superb hard-wearing granite surface
- Available in two surface finishes

PrimeTop® Ef-Stop®



Sizes

80mm

Depths

GT Ground Textured | G Ground

Finish

Pedestrian Use | Light Traffic | Commercial Traffic

Refer to relevant guidance in BS 7533

BIM Level 2

Specification

PrimeTop® Ef-Stop®

AirClean	Up to 16% NO_2 reduction (average 4% -16% reduction)
Product type	Concrete Paving Block
Manufactured to	BS EN 1338:2003
Surface Layer	Hard wearing surface layer with a minimum of 4mm and >390kgs/m³ cement
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >3.6MPa
Slip/Skid risk	Low
Installed to (Externally)	BS 7533-3:2005
NBS	**Plus** Q24 110 **Create** 45-20 64/400
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design and the most suitable product size for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 10%
Carbon Footprint	34kgCo^2e/m²
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**B**, according to the Green Guide to Specification, 4th Edition 2009. **A**, can be achieved when used in conjunction with a prepared recycled sub-base.

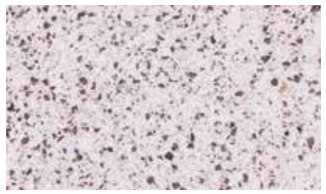
Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

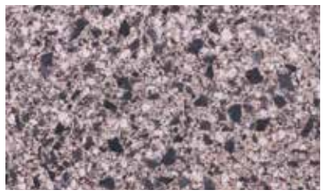
product	size (mm)	colours available	in stock	m² per pack	no. per pack	m² per slice	no. per m²	weight kg per pack GB	weight kg per pack NI/ROI
AirClean Braemar Ground & Ground Textured BIM	200 x 100 x 80	Alto Silver, Cara Slate	SO	9.60	480	1.6	50	1756	1746
	300 x 200 x 80	Alto Silver, Cara Slate	SO	9.60	160	2.4	16.66	1756	1746
	300 x 300 x 80	Alto Silver, Cara Slate	SO	7.20	80	1.8	11.11	1319	1309

BIM - This product is available to download from our website in BIM Level 2 format.

Alto Silver



Cara Slate



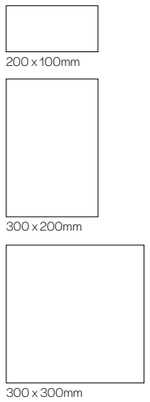
AirClean Fusion

Modular granite paving with AirClean.

Produced with a striking granite aggregate surface layer and available in two long-lasting colours, this modular granite paving opens up endless possibilities for creative paving patterns and designs, so you can achieve exactly the right look for your project while benefiting the environment.

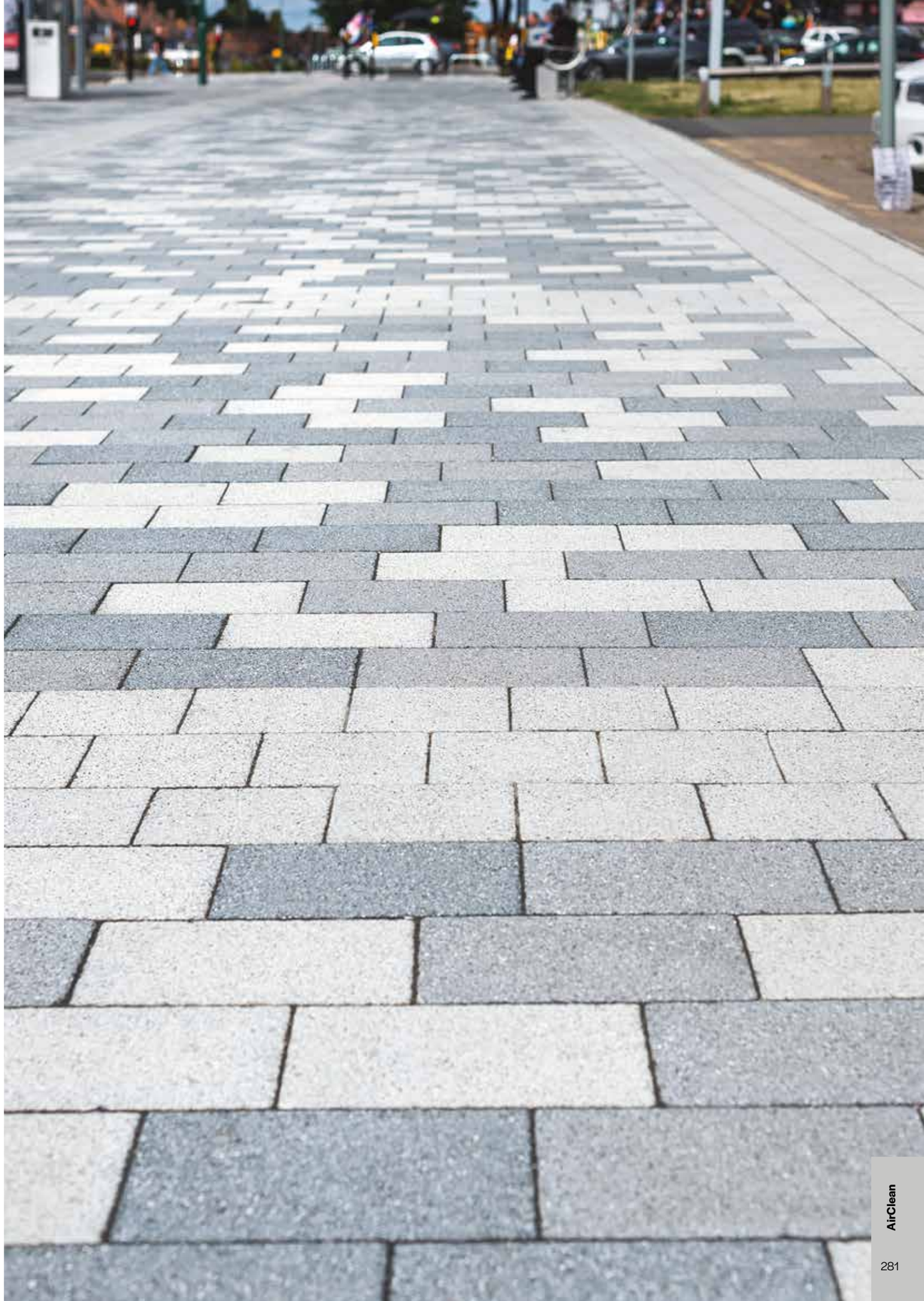
- Improves air quality by reducing harmful NO_2
- Transforms NO_2 into harmless nitrates
- Tried and tested photocatalytic technology
- Manufactured with natural granite aggregates
- Superb hard-wearing granite surface
- Vibrant long-lasting colours
- Creates a striking, contemporary look

PrimeTop® Ef-Stop®



Sizes

Depths



AirClean Fusion

TGA
Textured Granite Aggregate
Finish

Pedestrian Use | Light Traffic | Commercial Traffic

Refer to relevant guidance in BS 7533

Specification

PrimeTop® Ef-Stop®

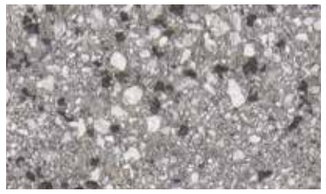
AirClean	Up to 16% NO_2 reduction (average 4% -16% reduction)
Product type	Concrete Paving Block
Manufactured to	BS EN 1338:2003
Surface layer	Hard wearing surface layer with a minimum of 4mm and >350kgs/m³ cement
Surface finish	Textured Granite Aggregate
Granite content	Not less than 53% of granite aggregate in surface layer
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >3.6MPa
Slip/skid risk	Extremely Low
Installed to	BS 7533-3:2005
NBSPlus	**Plus** D41 310 **Create** 45-80-50/322
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design and the most suitable product size for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 6%
Carbon footprint	34kgCo²e/m²
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam **rating** www.**bre**.co.uk	**B**, according to the Green Guide to Specification, 4th Edition 2009. **A**, can be achieved when used in conjunction with a prepared recycled sub-base.

Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

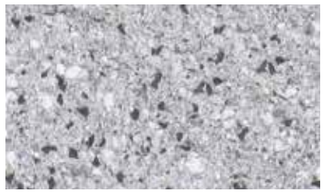
Stock

product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
AirClean Fusion	200 x 100 x 80	Mid Grey, Silver	SO	9.60	1.6	50	480	1756	1746
	300 x 200 x 80	Mid Grey, Silver	SO	9.60	2.4	16.66	160	1756	1746
	300 x 300 x 80	Mid Grey, Silver	SO	7.20	1.8	11.11	80	1319	1309

Mid Grey



Silver



IMPORTANT INFORMATION

Tobermore recommend that you separate product groups using contrasting bands of colour as each product is manufactured separately and may have slight variations in colour.

AirClean City Pave VS5

Innovative paving for busy streets.

Produced with a striking granite aggregate surface layer, Airclean City Pave VS5 is crafted with a unique VS5 spacer that adds shift protection on five sides of the block, giving it maximum stability and protecting against pavement shifting.

- Improves air quality by reducing harmful NO_2
- Transforms NO_2 into harmless nitrates
- Tried and tested photocatalytic technology
- Shift protection on five sides of the block provides maximum stability
- Manufactured with natural granite aggregates
- Superb hard-wearing granite surface
- Vibrant long-lasting colours
- Creates a striking, contemporary look

VS5 PrimeTop® Ef-Stop®

300 x 150mm

Sizes

100mm

Depths

Mid Grey

Silver

IMPORTANT INFORMATION

Tobermore recommend that you separate product groups using contrasting bands of colour as each product is manufactured separately and may have slight variations in colour.

TGA
Textured Granite Aggregate
Finish

Pedestrian Use | Light Traffic | Commercial Traffic | Shift Protection

Refer to relevant guidance in BS 7533

BIM Level 2

VS5

Shift Protection
City Pave VS5 generates the optimum stability through a combination of shift protection on the 4 vertical sides, plus a 5th, as the base is grooved to create a clawing effect on the sand bed, preventing horizontal movement. The 100mm block depth and 2mm joint, further enhances stability and protects the jointing material from wash out, ensuring consistent performance over time.

Specification

VS5 PrimeTop® Ef-Stop®

AirClean	Up to 16% NO_2 reduction (average 4%-16% reduction)
Product type	Concrete Paving Block
Manufactured to	BS EN 1338:2003
Surface layer	Hard wearing surface layer with a minimum of 4mm and >350kgs/m³ cement
Surface finish	Textured Granite Aggregate
Granite content	Not less than 53% of granite aggregate in surface layer
Spacer	Unique VS5 spacer which adds shift protection on five sides of the block
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Typical tensile splitting strength of >3.6MPa
Slip/skid risk	Extremely Low
Installed to	Specific installation instructions for City Pave VS5 are available from Tobermore
NSS	**Plus** Q24 110 **Create** 45-20-64/400
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 6%
Carbon footprint	**Silver** 40kgCo²e/m² **Mid Grey** 40kgCo²e/m²
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	Refer to the Green Guide to Specification, 4th Edition 2009

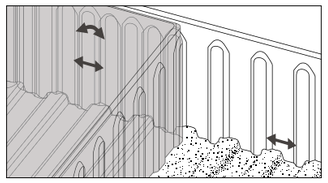
Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

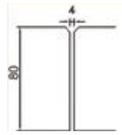
Stock

product	size (mm)	colours available	in stock	m² per pack	m² per slice	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
AirClean City Pave VS5 BIM	300 x 150 x 100	Mid Grey, Silver	SO	7.20	0.9	22.2	160	1565	1555

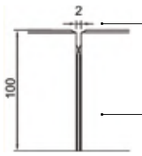
BIM - This product is available to download from our website in BIM Level 2 format.

Interlocking system with five side shift protection





Conventional paver
Joint width: 3-5mm



VS5 System
Joint width: 2mm

Better load distribution by using the whole block height.

Excellent protection of joint material against wash-out and suck-out

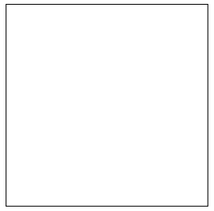
AirClean Mayfair Flags

AirClean paving with sparkling granite aggregates.

Combines the advantages of Airclean technology with sparking natural granite aggregate surface layer to creates a striking modern look.

- Improves air quality by reducing harmful NO_2
- Transforms NO_2 into harmless nitrates
- Tried and tested photocatalytic technology
- Manufactured with natural granite aggregates
- Superb hard-wearing granite surface
- Vibrant long-lasting colours
- Creates a striking, contemporary look

PrimeTop® Ef-Stop®



450 x 450mm

Sizes

70mm
50mm

Depths

TGA
Textured Granite Aggregate
Finish

Pedestrian Use | Light Traffic | Commercial Traffic

Refer to relevant guidance in BS 7533

BIM Level 2

Specification

PrimeTop® Ef-Stop®

AirClean	Up to 16% NO_2 reduction (average 4% -16% reduction)
Product type	Concrete Paving Flag
Manufactured to	BS EN 1339:2003
Surface layer	Hard wearing surface layer with a minimum of 4mm and >390kgs/m³ cement
Granite content	Not less than 57% of granite aggregate in surface layer
Efflorescence	Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence
Strength	Less than 50mm deep >3.5MPa Greater than 50mm deep >5MPa (Class 3)
Slip/skid risk	Extremely Low
Installed to	BS 7533-4:2006
NBS	**Plus** Q25 315 **Create** 45-20-64/395
Applications	Refer to the relevant part of BS 7533 for the correct sub-base design and the most suitable product size for your application. Available from www.bsigroup.com
Energy used	100% renewable energy
Water used	100% from our rainwater harvesting system and groundwater bore hole
Recycled content	Not less than 6%
Carbon footprint	**50mm** 19kgCo²e/m² **70mm** 30kgCo²e/m²
Recyclable	100% of this product can be recycled
Manufacturing & Delivery	From one location within the UK
breeam rating www.**bre**.co.uk	**A**, according to the Green Guide to Specification, 4th Edition 2009. **A+**, can be achieved by using a recycled sub-base.

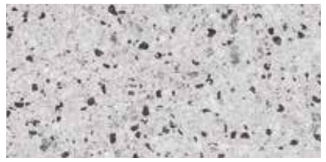
Tobermore products are manufactured in accordance with an accredited ISO 9001:2015 Quality Management. Manufacturing facilities are accredited to ISO14001:2015 Environmental Management. The company publish environmental labels and declarations in accordance with BES 6001.

Stock

product	size (mm)	finish	edge	colours available	in stock	no. per m²	no. per pack	weight kg per pack GB	weight kg per pack NI/ROI
AirClean Mayfair Flags	450 x 450 x 50	Granite Textured	Chamfered	Silver	SO	4.94	20	470	466
BIM	450 x 450 x 70	Granite Textured	Chamfered	Silver	SO	4.94	15	512	508

BIM - This product is available to download from our website in BIM Level 2 format.

Silver



Technical Information

Important Information

Any technical information provided by Tobermore in relation to any product (whether before or after order) is provided by way of GUIDANCE ONLY and, to the fullest extent permitted by law, without liability on the part of Tobermore for any loss or damage suffered as a result of relying upon it. Such technical information should not be relied upon in substitution for obtaining independent expert advice prior to using any product from both a suitably qualified engineer and building contractor, in particular, as to the suitability of the product for use at the intended site for the intended scheme.

Block paving is now an established product in the construction industry and have a number of British Standards (BS) dedicated to the range to ensure they are professionally installed. Refer to the following relevant BS guidelines for detailed information.

Important notes

Edge restraint
It is essential that the paved area is restrained at the edges to prevent movement. The edge restraints prevent rotation of the blocks under load, reducing the possible loss of laying course material at boundaries and resists lateral movement.

Laying course
If grit is used as the laying course, then fine sand must not be used for jointing as the fine sand can percolate into the bedding layer causing pavement failure.

Jointing sand
Block paving is capable of supporting substantial loads because the presence of sand in the joints generates significant friction between adjacent blocks and there by distributes loads horizontally across the surface of the pavement from block to block. Jointing sand is available from Tobermore. Sand is purchased separately from paving. ***Very fine jointing sand is not suitable for heavily trafficked areas.***
Refer to BS7533-3 for all jointing sand specifications. (It's worth pointing out that the vast majority of contractors apply the jointing sand before consolidation. This is found to give better results and does not conflict with BS 7533:3). Block paving can also be installed with a rigid joint. Please refer to BS 7533-10:2010.

Instructions and warnings
Refer to page 289

BS 7533-1:2001	Pavements constructed with clay, natural stone or concrete pavers. Guide for the structural design of heavy duty pavements constructed of clay or concrete pavers.
BS 7533-2:2001	Pavements constructed with clay, natural stone or concrete pavers. Guide for the structural design of lightly trafficked pavements constructed of clay pavers or precast concrete paving blocks.
BS 7533-3:2005+ A1:2009	Pavements constructed with clay, natural stone or concrete pavers. Code of practice for laying precast concrete paving blocks and clay pavers for flexible pavements.
BS 7533-4:2006	Pavements constructed with clay, natural stone or concrete pavers. Code of practice for the construction of pavements of precast concrete flags or natural stone slabs.
BS 7533-7:2010	Pavements constructed with clay, natural stone or concrete pavers. Code of practice for the construction of pavements of natural stone paving units and cobbles, and rigid construction with concrete block paving.
BS 7533-8:2003	Pavements constructed with clay, natural stone, or concrete pavers. Guide for the structural design of lightly trafficked pavements of precast concrete flags and natural stone flags.
BS 7533-10:2010	Pavements constructed with clay, natural stone or concrete pavers. Guide for the structural design of trafficked pavements constructed of natural stone setts and bound construction with concrete paving blocks.
BS 7533-11:2003	Pavements constructed with clay, natural stone or concrete pavers. Code of practice for the opening, maintenance and reinstatement of pavements of concrete, clay and natural stone.
BS7533-12:2006	Pavements constructed with clay, natural stone or concrete pavers. Code to the design of trafficked pavements constructed on a bound base using concrete paving flags and natural stone slabs.

Note BS guidelines are subject to change and therefore you should refer to www.bsigroup.com for the latest version.

We do not recommend the use of paving sealer as this will reduce the effectiveness of AirClean paving. Other important references include - British Port Association heavy duty pavement design manual: "The structural design of heavy duty pavements for ports and other industries".

Instructions & Warnings

As referred to in Tobermore's Conditions of Sale

CORE TERMS (PAVING & WALLING)

Product
All products should be carefully inspected for defects or damage upon delivery and prior to being laid or fitted.

Product Information
Within Tobermore, design and development of products is a continuing process, and product information is subject to change without notice. Accordingly, please check with Tobermore to ensure that the product information you have represents the most up-to-date product information.

Installation
All products should be installed in accordance with the latest British Standard.

Colour
Tobermore produces paving and walling products with excellent density and durability, however, as with all concrete products, slight colour variations are inevitable. Although every effort is made to ensure consistency of product colour, variations can occur. In particular, single colours such as Golden, Buff, Natural, Charcoal and Red will have variations. Tobermore therefore recommends that products are thoroughly mixed on site by drawing from a minimum of four pallets.
We would always recommend that when purchasing products, especially in larger quantities, that they are all ordered and manufactured in one batch to reduce the chances of getting colour variation.
Please note that the colour of new products will inevitably vary compared to those which have been installed for a period of time as weathering does take place.
All colour illustrations in Tobermore's brochures are as accurate as the printing process will allow. For a more accurate colour match please refer to actual product samples, which can be provided.

Efflorescence
Efflorescence is a white crystalline deposit that occurs naturally on the surface of concrete materials. Tobermore use market leading technology to significantly suppress the occurrence of efflorescence, however, if it occurs, it may mask the colour of the product for a period of time, but tends to be washed away gradually by rain. Tobermore do not replace products with efflorescence. Packs of products which have had packaging removed should always be re-covered with appropriate packaging to prevent the occurrence of secondary efflorescence.

Surface Scratches
Minor scuffs or bruises may occur during delivery, movement onsite, and installation (for example, during any plate vibrating process). In Tobermore's experience, these marks usually weather off through time. (EasyClean products are protected with a glue dot).

Ordering
To avoid waste, please ensure that your contractor accurately measures the area on site before ordering products. In Tobermore's experience, dimensions taken from a project plan can vary significantly from the final layout.

Manufacturing & Quality Systems
Tobermore is a BS EN ISO 9001, BS EN ISO 14001 and BES 6001 registered company. Tobermore uses an integrated management system to manage all health & safety and environmental issues.

Product Maintenance
Routine cleaning and maintenance is required to keep the overall appearance of products in pristine condition.
Laying multi-blend coloured paving blocks, flags and walling products
To achieve an even blend of colour when laying multi-blend paving blocks, flags and walling products, it is desirable to mix from three or four different pallets.

Queries & Complaints
Please contact one of Tobermore's Paving & Walling Centres or offices (contact details at www.tobermore.co.uk) with any queries or complaints. Any complaints must be notified to Tobermore without delay.

CORE TERMS (PAVING ONLY)

Product Maintenance
Light coloured paving blocks and flags emphasise tyre marks and oil spills on the driveway. Please note that these products will need more maintenance if overall appearance is to be maintained.

Initial Cleaning
When an area has just been paved, allow it to settle for a few days. After this, you may wish to lightly hose down the paving to remove any excess sand or dirt. The area should then be treated with a weed killer suppressant two – three times per year as required.

General Cleaning
Paving requires regular maintenance, including regular sweeping to prevent the build up of detritus. Tobermore recommends that paving is cleaned two – three times per year.
For general cleaning of dirt and algae, vigorous brushing with a stiff yard brush with plenty of hot detergent solution (washing up liquid or non-bio washing powder), thoroughly rinsed with clean water, should suffice. Repeated treatment may be required for paved areas sited beneath trees or in permanent/near permanent shade.
A light power hose at medium pressure is generally all that is required to clean general dirt and grime. Any jointing material which is removed must be replaced. Do not use high pressure powerwashers as aggressive power-washing can damage the product surface. A trial area should be tested before large scale powerwashing takes place. (Important: EasyClean products should not be pressure washed. Please refer to specific EasyClean information)

Moss, Lichen and Algae
Thick growths of moss or lichen must be removed first by scraping out the joints and then treating the area with a moss killer such as anti-moss paving cleaner. Anti-moss is designed to remove moss, lichens and algae. It is best applied in dry weather. After being applied it will take a few days to be fully effective. Once the moss and lichens have been killed, they can easily be brushed off. Anti-moss also leaves a residue in the sand joint which will help reduce the likelihood of re-growth. The manufacturer's instructions should always be followed when using any cleaning agent.

Weeds
Large weeds should be removed by hand and then the area treated with a weed killer (available from any good garden centre). Smaller weeds can then be treated directly with weed killer and these weeds should start to die within days. The manufacturer's instructions should always be followed when using any weed killing agent.

Block Paving Sealer
It is possible to seal block paving with a resin material which combats staining and weed growth and which also enhances colour and appearance. The acrylic sealer is sprayed onto the block paving and forms a 'skin' on top of the paving and the jointing material giving an easily maintained finish. The manufacturer's instructions should always be followed when using any sealing agent. (Important: Do not use sealers on EasyClean products)

FOR HYDROPAVE PRODUCTS

Installation - Hydropave
Tobermore recommends that its Hydropave products be installed in conjunction with a BS EN 7533-13:2009 designed permeable paving system.
Note: A permeable paving design relies heavily on using the correct aggregates. Prior to installation, we would ask you to test both the 4/20mm coarse graded aggregate and also the 6.3-2mm bedding and jointing grit as per the relevant British Standard specification (BS EN 13242:2002). In particular, the material should be categorised as LA20 according to Table 9, SZ18 according to Table 10 and MDE15 according to Table 11 within this standard. The grit should be insoluble in dilute hydrochloric acid and should be naturally occurring material. In our experience, incorrect use of aggregates is one of the most common reasons for failure of a permeable paving system.

Joint Filling
All joints must be filled to the top with 6.3 – 2mm grit to prevent movement and spalling of the blocks. We recommend that after a few weeks use, any joints which have settled and are not full, are topped

up with grit. Joints should be kept filled at all times. You will need approximately one tonne of grit for every 100m2 of 80mm paving.
Note: Care should be taken that the permeable joints do not become contaminated as work on the scheme is completed. Special care needs to be taken when soft landscaping is carried out so that soil does not enter the joints. When this type of work is being carried out, the surface of the permeable paving should be protected by an appropriate cover to protect the joints from being contaminated.

Hydropave Maintenance
Please refer to Tobermore's detailed 'Permeable Paving Maintenance Guidelines' available on our website: www.tobermore.co.uk

FOR EASYCLEAN PRODUCTS

Handling & Installation
During installation, the surface should be protected at all times from scratching and abrasion.
Once the protective glue dot has been removed do not stack flags directly on top of each other.
Use a plate vibrator with a rubber mat.
Do not scratch the surface with tools. (Spade, trowel etc.)

User advice
Do not drag garden furniture across the surface of the flags.
Do not pressure wash.
Do not use chemical cleaning products (e.g. solvents/acids).

FOR FACING BRICK/ ENGINEERING QUALITY BRICKS & COUNTRY STONE PRODUCTS

Important Note:
Where the circumstances allow, it is beneficial to complete one building / structure using bricks taken from one batch and mixed on site from a minimum of 3 packs to avoid colour banding / shading. If the circumstances do not allow for this then it is important to minimise the possibility of banding / shading by always mixing bricks from 3 packs concurrently with some overlap between deliveries.
Where the site conditions allow, it will also be beneficial to take receipt of as many bricks as possible at an early stage to maximise colour consistency throughout the site.

Installation – Facing Bricks/Engineering Quality Bricks
Please refer to Tobermore's detailed 'Guide to the use of Tobermore Concrete Bricks' available on our website: www.tobermore.co.uk

Installation – Country Stone
Tobermore's Country Stone products are designed to recreate traditional stone sizes and to co-ordinate with standard cavity wall construction. When used in housing projects, a clear cavity must be retained. All work must be protected during construction and must be designed and built in accordance with accepted industry standards and practice. Builders familiar with conventional brickwork will find that similar installation principles apply. Joints can be finished flush or tooled depending on the overall effect required. Raked joints are not recommended. It is vital that all horizontal and vertical joints between Country Stone blocks must be compacted and free from voids. Shell bedding should not be used.

Good Practice during Construction - Facing Bricks/Engineering Quality Bricks & Country Stone
- If mortar dry's on the surface of the bricks it will stain the product and may not be removed.
- Mortar extruding from joints should be removed when the mortar is wet and during the process of laying.
- Any mortar smears on the brick surface should be removed by dry or wet brushing.
- Scaffolding should be installed as per regulatory instructions. Please note that mortar can drop and hit the scaffolding and then also go onto the wall. You should inspect the work area at all times to ensure the brick surface remains mortar free.
- When it rains be careful that any wet mortar on the scaffolding does not get 'splashed' onto the wall.
- When work stops or is interrupted by inclement weather conditions, brickwork should be protected immediately with polythene sheeting that is held in place with a suitable fixing. If new brickwork is not protected efflorescence, patchy mortar colour, patchy brickwork and staining can occur.
- Bricks should always be covered with polythene sheets to avoid getting damp or dirty when not being used.

General Cleaning Advice - Facing Bricks/Engineering Quality Bricks & Country Stone
- It is always important to keep bricks as clean as possible while laying and tooling. See Good Practice above.
- If mortar has been allowed to dry on the surface of the bricks the options you have to clean it off are as follows; Each process should be tested first and should ensure the facing bricks are not damaged - a. Dry brushing b. Wet brushing c. Using a 'like coloured' brick to rub the stained brick d. Pressure washing - should only be used as a last resort as it will damage the surface and the mortar joint if not completed correctly (this method cannot be attempted until the area has been allowed to set for a minimum of 7 days).
- Acid cleaning should be avoided.

Movement Joints and Mortar Guidance - Facing Bricks/ Engineering Quality Bricks & Country Stone
1. NHBC recommends that walls constructed of concrete facing bricks should have vertical movement joints included every 6m to allow for drying/shrinkage, see PD6697:2010 section 6.2.6.3.4, maximum ratio for brickwork panels is to be 3:1 length : height. PD6697:2010 section 6.2.6.4 gives advice on joint positions, the benefit of brickwork reinforcement at window openings is covered in section 6.2.6.7 of the same document. Movement joints should be planned prior to commencing any construction to enable them to be concealed behind down pipes etc. and ensure the aesthetic of the building is maintained.
2. It is important to ensure that the mortar specified for the construction is suitable for the contract, see table 15 of PD6697:2010 - class M4 is the maximum recommended for normal external facing brick walls. This should not be exceeded when using Tobermore Concrete facing bricks.
3. We would recommend that you discuss this guidance with all parties involved in the design, construction and installation of this scheme. We also recommend that you refer to BS EN 1996-1-1 and PD6697:2010.
4. Specific professional advice should be obtained at all times before commencing building work.

Important Guidance Information: Tobermore Concrete Facing & Engineering Quality Bricks
1. Professional advice, specific to the project, should be sought before commencement of the building work.
2. Tobermore Facing Bricks and Engineering Quality Concrete Bricks have different properties. These properties will also be different to clay bricks especially in relation to moisture movement. Please refer to 'Guide to the Use of Tobermore Concrete Facing Bricks', which is available on request or at www.tobermore.co.uk
3. Tobermore recommends that vertical movement joints be spaced at no more than 6m apart. Panels of brickwork where the length: height ratio exceeds 3 are particularly vulnerable to cracking; if they cannot be avoided they should include movement joints at closer centres.
4. Movement joints should be planned prior to any construction so that they can be concealed behind drainpipes etc. Further guidance on moisture movement is available in the 'Guide to the Use of Tobermore Concrete Facing Bricks' and BSI documents BS EN 1996 (Eurocode 6) and PD 6697 (Recommendations for Design).
5. It is important to ensure that the mortar specified is suitable for the construction, see Table 15 of PD 6697. Mortar of strength class M4 will generally be suitable except where engineering quality brickwork is required. Please refer to 'Guide to the use of Tobermore concrete facing bricks', which is available on request.
6. When building with dissimilar materials allowances should be made for differential movement. Design guidance from a structural engineer should be sought when combining dissimilar materials such as clay and concrete facing and Engineering Quality bricks. Examples of using dissimilar materials would be where a clay brick is used to build up to the dpc level and then Tobermore concrete facing bricks are used above the dpc. Another example would be where Tobermore Engineering Quality concrete bricks are used below dpc level and then clay facing bricks above the dpc. In some circumstances the dpc acts as a slip plane to separate the two materials which helps to dissipate tensile stress. However expert guidance should always be sought as to ensure structural stability as further slip planes or bed reinforcement may need to be incorporated into the design.
7. It is recommended that this guidance is discussed with all persons involved in the design and construction of the building work.

FOR SECURA PRODUCTS

Installation - Secura
All Secura products should be installed in accordance with British Standard BS8002. When constructing a retaining wall, ensure that you follow the design provided by the scheme engineer.

Contact Us
GB: 0844 800 5736
NI: 028 7964 2411
ROI: 048 7964 2411

Email
technical@tobermore.co.uk
sales@tobermore.co.uk
tobermore.co.uk

Tobermore