

Proteus Granite

Date Created: 07/02/19



*It should be noted that colour variations and markings are characteristic of Natural Stone. Inherent variations cannot be controlled nor the precise shade of stone guaranteed.

Proteus Granite is a striking black stone. Available in flamed and fine picked finishes, it is suitable for pedestrian or vehicular trafficked areas.

Granite's are generally hard wearing, strong and durable. They provide a modern aesthetic and can be fashioned into a wide range of Landscape products.

Proteus Granite is available for all product areas including paving, setts, kerbs, tactile, steps, water management, street furniture or other bespoke specialised masonry items such as veneers for planters or furniture.

Produced to ISO9001 quality assurance standards, all Marshall granite's are fully tested to the appropriate standards in the UK and are all CE marked in accordance with the latest legislation.

DESCRIPTION

Appearance	Grey green with fine black inclusions
Manufacturing Process	Sawn
Geological Type	Diorite
Quarry of Origin	Hebei Province, China
Governing Manufacturing Standards	All data where relevant to be established in accordance with BS EN 1341 : 2012, BS EN 1342 : 2012 & BS EN 1343 : 2012
Petrographical Description	Dark grey green coarse grained Diorite
CE Marking/DOP	https://www.marshalls.co.uk/dop

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PHYSICAL PROPERTIES

Work Dimensions (mm)	450 x 450 x 50 450 x 450 x 60 450 x 450 x 70 900 x 450 x 50 900 x 450 x 60 900 x 450 x 70 600 x 600 x 50 600 x 600 x 60 600 x 600 x 70 900 x 600 x 50 900 x 600 x 60 900 x 600 x 70 200 x 100 x 50 200 x 100 x 60 200 x 100 x 70 300 x 100 x 50 300 x 100 x 60 300 x 100 x 70 300 x 150 x 50 300 x 150 x 60 300 x 150 x 70 300 x 200 x 50 300 x 200 x 60 300 x 200 x 70
Tolerances on Work Dimensions (mm)	Paving Class 1 tolerances to all dimensions as standard Setts Class 2 tolerances to all dimensions as standard Kerbs Class 2 tolerances to all dimensions as standard Others by agreement
Abrasion Resistance (mm)	14.3mm (Mean value to EN 14157 : 2004 (Hev = 14.8mm))
Durability (Freeze-thaw)	23.7/22.4 MPa (Mean values to EN 12371 : 2006)
Material Density	3140 kg/m ³ (Mean value to EN 1936 : 2006)
Open Porosity (%)	0.56% (Mean value to EN 1936 : 2006)
Compressive Strength (MPa)	147 MPa (Mean value to EN 1926 : 2006 (Lev = 109 MPa))
Water Absorption (%)	0.18% (Mean value to EN 13755 : 2008 (Hev = 0.2%))
Transverse/FlexuralSplit/Breaking	18.9 MPa (Mean value to EN 12372 : 2006 (Lev = 15.7 MPa))

TEXTURE SPECIFIC PROPERTIES

MANUFACTURING

Materials Control	CE Marked to BS EN 1341 Paving, 1342 Setts, 1343 Kerbs
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SUSTAINABILITY

ERI Score	Our Score: 0.6 Cluster Score: 0.5
Carbon Footprint (KgCO ₂ each)	
Proteus Granite Paving 300 x RL x 50	96 kg CO ₂ m ²
Proteus Granite Paving 300 x RL x 63	134.4 kg CO ₂ m ²
Proteus Granite Paving 300 x RL x 75	115.2 kg CO ₂ m ²
Proteus Granite Paving 450 x 450 x 50	96 kg CO ₂ m ²
Proteus Granite Paving 450 x 450 x 63	134.4 kg CO ₂ m ²
Proteus Granite Paving 450 x 450 x 75	115.2 kg CO ₂ m ²
Proteus Granite Paving 450 x 900 x 50	96 kg CO ₂ m ²
Proteus Granite Paving 450 x 900 x 63	134.4 kg CO ₂ m ²
Proteus Granite Paving 450 x 900 x 75	115.2 kg CO ₂ m ²
Proteus Granite Paving 450 x RL x 50	96 kg CO ₂ m ²
Proteus Granite Paving 450 x RL x 63	134.4 kg CO ₂ m ²
Proteus Granite Paving 450 x RL x 75	115.2 kg CO ₂ m ²
Proteus Granite Paving 600 x 600 x 50	96 kg CO ₂ m ²
Proteus Granite Paving 600 x 600 x 63	134.4 kg CO ₂ m ²
Proteus Granite Paving 600 x 600 x 75	115.2 kg CO ₂ m ²
Proteus Granite Paving 600 x 900 x 50	96 kg CO ₂ m ²
Proteus Granite Paving 600 x 900 x 63	134.4 kg CO ₂ m ²
Proteus Granite Paving 600 x 900 x 75	115.2 kg CO ₂ m ²

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	Flamed	Fine Picked
Light Reflectance Value (LRV)	21.54	20.62
Surface Roughness (Rz-µm)	>75	>75
Slip Resistance (BS 14231) (Dry)	95	96
Slip Resistance (BS 14231) (Wet)	71	72

SUSTAINABILITY

Proteus Granite Paving 600 x RL x 50	96 kg CO2 m ²
Proteus Granite Paving 600 x RL x 63	134.4 kg CO2 m ²
Proteus Granite Paving 600 x RL x 75	115.2 kg CO2 m ²
Proteus Granite Setts 200 x 100 x 50	96 kg CO2 m ²
Proteus Granite Setts 200 x 100 x 63	134.4 kg CO2 m ²
Proteus Granite Setts 200 x 100 x 75	115.2 kg CO2 m ²
Proteus Granite Setts 300 x 100 x 50	96 kg CO2 m ²
Proteus Granite Setts 300 x 100 x 63	134.4 kg CO2 m ²
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Proteus Granite Setts 300 x 200 x 75	115.2 kg CO2 m ²

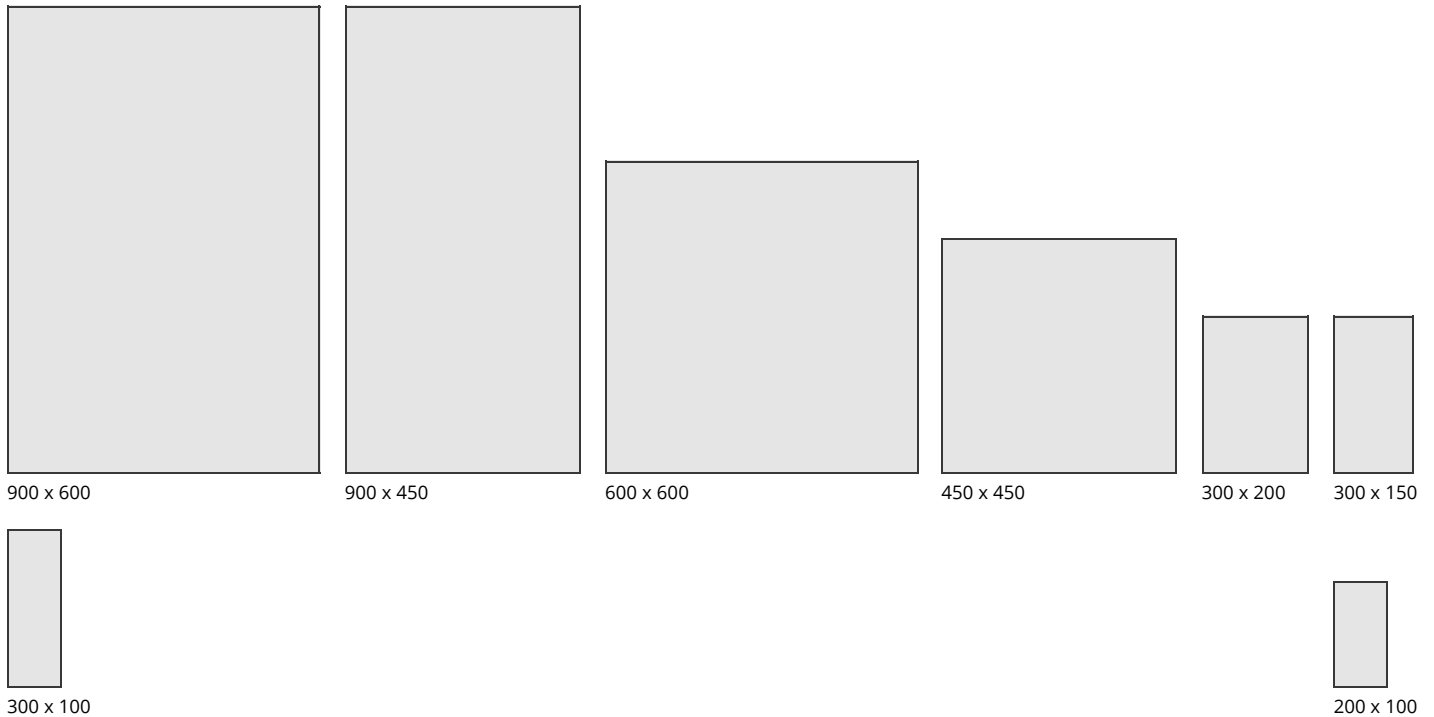
FURTHER INFORMATION

Contact Us	For technical information on the design, specification and construction when utilising the product, contact the Technical Advisory Services Department on 0370 411 2233
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Suggested Plan Sizes



The plan sizes shown above illustrate popular sizes of our Natural Stone. Bespoke sizes are available upon request.