

Roofing Accessories Product Guide



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All Under One Roof

This quality range comes to you from Klober, and is the result of a fresh, innovative design approach.

Each product has been universally designed to simplify both specification and installation.

The products also benefit from other special features, cleverly incorporated through considerable technical expertise and design skills, to enhance either their performance or visual appearance.

In producing the range, full use has been made of the latest materials and manufacturing technology, plus Klober's research findings on all aspects of roofing.

All products are rigorously tested - as you'd expect from a company with a reputation for quality. This includes performance and wind tunnel testing ensuring that every product in the range will stand up to the worst of the British weather and comply fully with British Standards and all other relevant performance requirements.

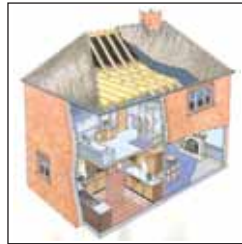
For further advice on any aspect concerning specification, design or installation of Klober products, please contact our Technical Department.

To order Klober products please contact our Sales Office.

The information given in this document is correct to the best of our knowledge. Specifiers and users must satisfy themselves as to the suitability of any particular product, specifications or design detail.

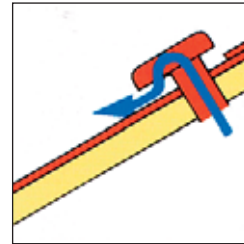
The reproduction of colours in this brochure is subject to the limitations of the printing process. It is recommended that samples are obtained from the address on the back cover of this brochure.

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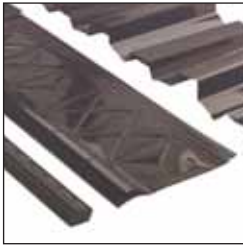
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Condensation. A rising problem.

Condensation is a symptom of modern living and of today's preoccupation with saving energy by minimising heat loss.

The increased presence of central heating, showers and modern domestic appliances produces greater amounts of water vapour in the home. An unvented tumble drier alone can emit as much as 7.5 litres per day. Matters are made worse by the fact that these moisture-producing activities are often concentrated at certain times of the day, followed by long periods when the house is either unoccupied or unheated.

In addition, through greater draught proofing, double glazing and fewer open fire places, ventilation is reduced throughout the home - encouraging this moisture-laden air to rise into the roof space. Here too, natural ventilation is virtually eliminated through the use of underlay. The traditional roof void is also cold because of the presence of thicker insulation material. So as the warm, moisture-laden air rises from below, it cools, reaches dewpoint, and condenses on cold surfaces.

If left unchecked, this condensation can cause severe damage to the fabric of the building. Timber can rot, weakening the structure. Wetting will cause timber and timber-based materials to swell and distort, permanently damaging sarking boards and wall plates. Metal corrosion can occur on components such as roof truss nail plates. Insulation materials will absorb dripping water and lose their thermal effectiveness. Ceilings could be damaged by condensation soaking through. Electrical circuits could be affected. Mould growth will form, and anything stored in the loft could be permanently damaged.

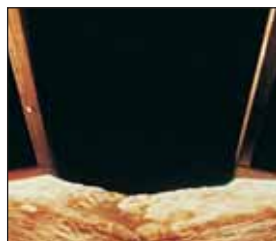
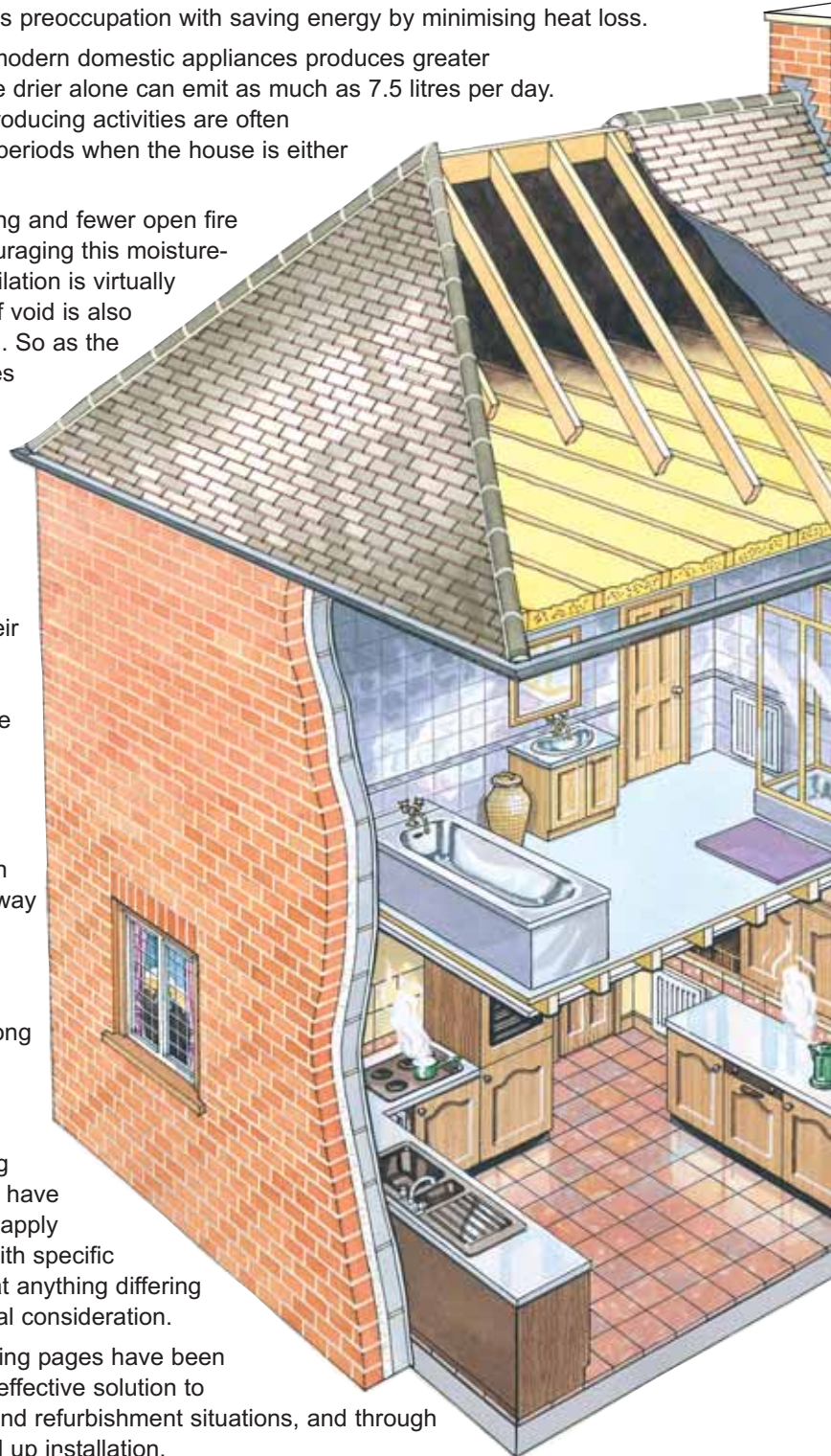
Solution.

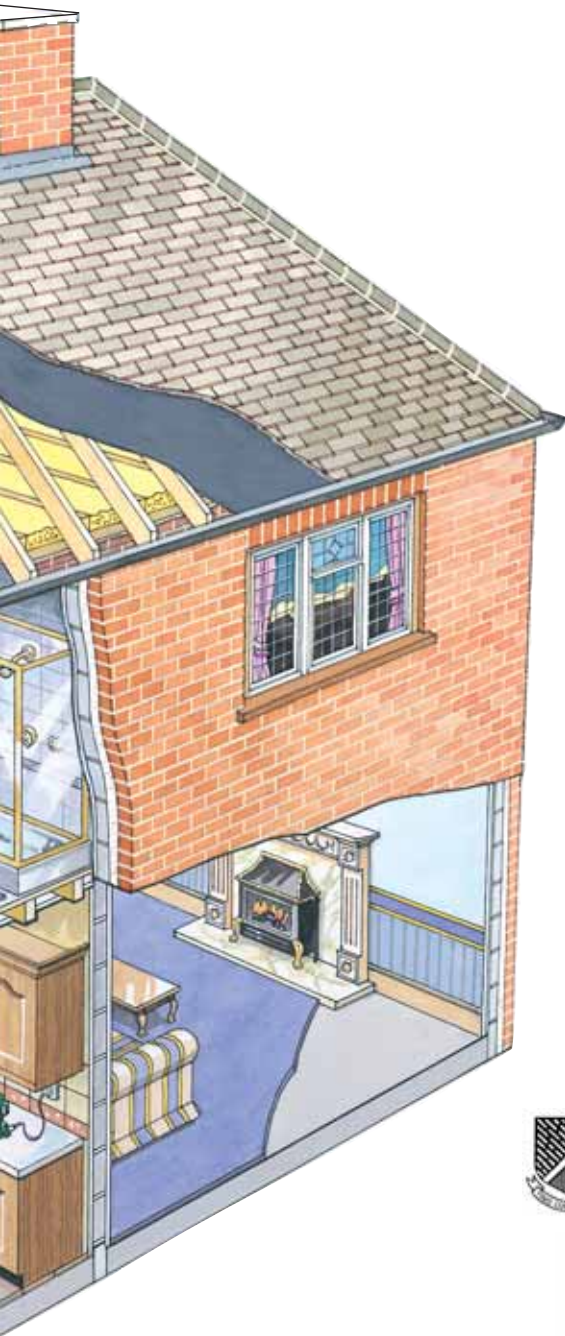
There are two solutions to prevent excessive condensation forming in a roof void, one is to ventilate in the traditional way and the other is to use a vapour permeable underlay that allows the roof structure to breathe.

Klober can offer both, providing a wide range of eaves ventilation systems, slate ventilators and tile ventilators along with a range of vapour permeable underlays that all have BBA or IAB Certification.

In recognition of the increased importance of controlling condensation, both the Approved Document of the Building Regulations and the British Standard relating to ventilation have been revised. A summary of the main requirements which apply generally to all new and existing buildings is given here, with specific situations tabled overleaf. It should be noted, however, that anything differing markedly from typical domestic situations may need special consideration.

The Klober roof ventilation products featured on the following pages have been specifically designed to provide the most simple and cost-effective solution to condensation. They can be used in new build, re-roofing and refurbishment situations, and through their universal nature will simplify specifications and speed up installation.





A Member of UKTFA



IRISH TIMBER FRAME
MANUFACTURERS' ASSOCIATION



Certificate No. FM 95146

British Standards

BS 5250 2002 Code of Practice for Control of Condensation in Buildings.

Roofs: General Points

1. Moisture should be extracted at source to reduce the risk of water vapour transfer from occupied areas to the roof
2. To achieve adequate cross ventilation, ventilation openings should, where possible, be placed on the longer sides of a typical rectangular roof
3. If ventilation openings are sited at intervals, they should be of equivalent area to the continuous openings recommended, and avoid stagnant air pockets due to inadequate through-flows. Opening sizes are minimum provisions, with certain constructions there are advantages in increasing these in order to ensure air movement through the roof void.
4. Ensure that ventilation openings cannot be blocked by dust, airborne debris, paint or frost, and that the ingress of rain, snow, birds and large insects is prevented. A nominal mesh size of 4mm is recommended, which would achieve this and avoid excessive airflow resistance. Consideration should be given to the use of proprietary ventilators where these will avoid problems, or be more practicable in use. The ventilation openings should provide a continuous weatherproof path from the roof void to the outside without impairing the waterproof function of the structure, eg. the roof underlay, vapour control layers or the roof covering.
5. The minimum free airspaces defined should be maintained throughout and particular attention should be paid to potential restrictions at changes in roof slope, changes in constructional details and at junctions with walls.
6. Where the roof construction includes wet processes, or where wetting occurs from rain during construction, it should be ensured that moisture is not trapped between the waterproof roof covering and a vapour control layer positioned at a lower level. If necessary, provision should be made for venting any trapped water vapour.
7. For pitched roofs where ventilation at high level (eg. at or near the ridge) is recommended, this is in addition to any low level requirement.
8. Thermal bridging should be avoided at the external wall / ceiling junction.
9. A well sealed ceiling should be provided
10. Where the insulation is at ceiling level and where the eaves ventilation airway is provided between the insulation and the underlay, they should be separated from one another by at least 25mm.
11. BS5250:2002 recognises two types of underlay type LR, low vapour resistance and type HR, high vapour resistance.

The Building Regulations

Approved Document part C 'Site Preparation & Resistance to Contaminants & Moisture'.

NOTE

THE BUILDING REGULATIONS REQUIREMENTS FOR SPECIFIC SITUATIONS ARE DETAILED OVERLEAF AS AN ALTERNATIVE, THESE REQUIREMENTS CAN BE MET BY FOLLOWING THE RELEVANT BBA CERTIFICATION.

Summary of Ventilation Requirements

This table is designed to provide an easy, at-a-glance guide to ventilation requirements in respect of the most common roof types, and to the Klover products which can satisfy those requirements. In many cases a choice of product exists, and product selection will depend on several factors - such as whether it is new build, re-roofing or refurbishment work, and whether ventilation is preferred through the soffit or over the fascia. The ventilation requirements are the minimum levels set out in BS 5250. There may well be instances where additional ventilation is thought advisable and, of course, unusual roof types will demand special consideration.

Further information or technical guidance is available by contacting our Technical Department.

Additional Information

Availability

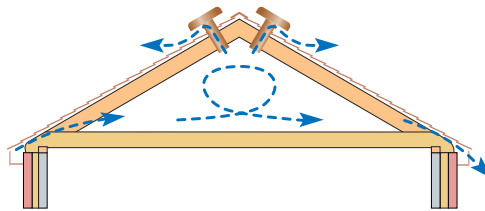
All Klover products are available nationally through the Klover stockist network.

References

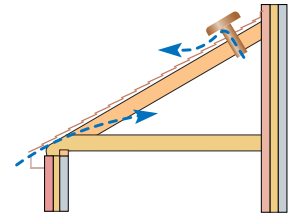
1. Building Regulations :Part C. Approved Document H 'Drainage & Waste Disposal' (revised 1990). Approved Document L 'Conservation of Fuel and Power' (revised 1995).
2. BS 5250: 2002: Code of Practice for control of condensation in Buildings.
3. BS 5534: 2003 Slating and Tiling.
4. BS 8000: Part 6: 1990 Workmanship on Building Sites, Code of Practice for Slating and Tiling of Roofs and Cladding.
5. BS 5720: 1979: Code of Practice for Mechanical Ventilation and Air Conditioning in Buildings.
6. BRE Report 'Thermal Insulation: Avoiding Risks'.

Situation

Standard Duo-Pitch Roof
15° pitch and above



Lean-To or Mono-Pitch Roof
15° pitch and above



Requirements

10mm continuous opening at eaves, with additional high level ventilation of 5mm particularly for pitches over 35° and spans greater than 10m.

10mm continuous opening at eaves, with additional high level ventilation of 5mm.

LOW LEVEL Product to suit (depending on detail) see key below

1 3 4 5 6 7 8 9 10 11 12
13 14 15

1 3 4 5 6 7 8 9 10 11 12
13 14 15

HIGH LEVEL Product to suit (depending on detail) see key below

7 8 9 10 11 12 13 14 15 16 17

7 8 9 10 11 12 13 14 15

Key



1 10mm Over Fascia Vent



2 25mm Over Fascia Vent



3 Rafter Tray



4 Roll Out Rafter Tray



12 Small Slate Vent



13 Top Vent Tiles



14 Uni-Line® Tile Vent

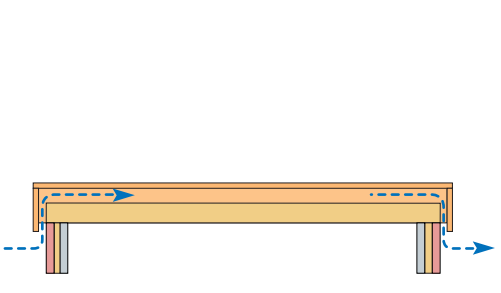
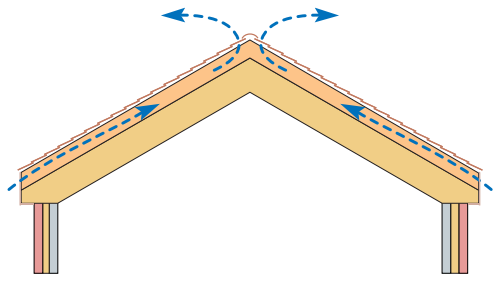
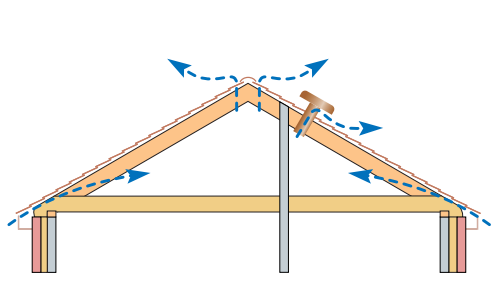


15 Uni-Line® Slate Vent

Duo-Pitch Roof 15° pitch and above, with division walls

Duo-Pitch Roof, with ceiling and insulation inclined

Flat Roof-Cold Deck or Pitched Roof less than 15°



10mm continuous opening at eaves, with 5mm continuous opening immediately below and 10mm continuous opening immediately above each division wall.

25mm continuous opening at eaves, with additional high level ventilation of 5mm either side or 5mm at the ridge.

25mm continuous opening on opposite sides

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5 Eaves Vent Pack



6 Rafter Tray



7 Uni Plain Tile Vent



8 Universal Vent Tile



9 Profile-Line® Tile Vent



10 Large Slate Vent



11 10K Slate Vent



16 Uni Dry Ventilating Ridge



17 Roll-Fix® Kit



18 Flavent® Flat Roof Vents

Fascia Vents



Description

Easily installed unit providing eaves ventilation over the fascia in new build or re-roofing situations. The 25mm vent is specifically designed for use in situations where the insulation is positioned between the rafters and on flat roofs and roof pitches below 15° (both at edges and at abutments).

Material

Polypropylene.

Colour

Black.

Product Codes - Cartons

KP964400 (10mm vent, 500mm long) - 100m.
200pcs.

KP965200 (10mm vent, 1000mm long) - 50m.
50pcs.

KP964500 (25mm vent, 500mm long) - 25m.
50pcs.

KP964300 (25mm vent, 1000mm long) - 50m.
50pcs.

Dimensions

1m/500mm long x 42mm wide x 25mm deep
(10mm vent)

1m/500mm long x 48mm wide x 38mm deep
(25mm vent)

Related Products

Both the 10mm vent and the 25mm vent may be used in conjunction with the Klobber Rafter Tray or the Klobber Roll Out Rafter Tray.

Features

- Unobtrusive method of ventilation.
- Can be installed with or without soffit.
- In 500mm lengths for economy.
- Savings in depth of fascia can be made.
- Lightweight and durable.
- Prevents entry of birds and large insects.
- Complies fully with relevant Building Regulations and British Standards.

Performance

Available in two ventilation capacities. When installed along whole length of eaves, 10mm vent provides the equivalent of a continuous 10mm opening (10,000mm² per metre run), 25mm vent provides the equivalent of a continuous 25mm opening (25,000mm² per metre run).

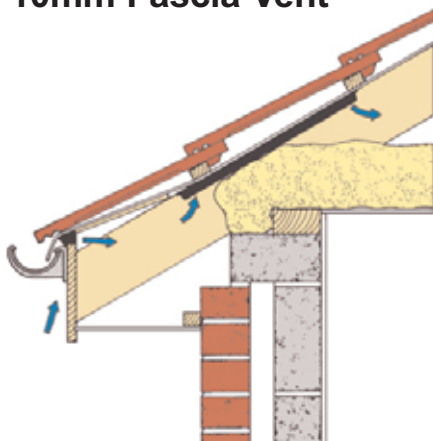
Installation

The first vent is nailed to the top of the fascia at the right hand edge of the eave and then subsequent units fixed continuously along the fascia.

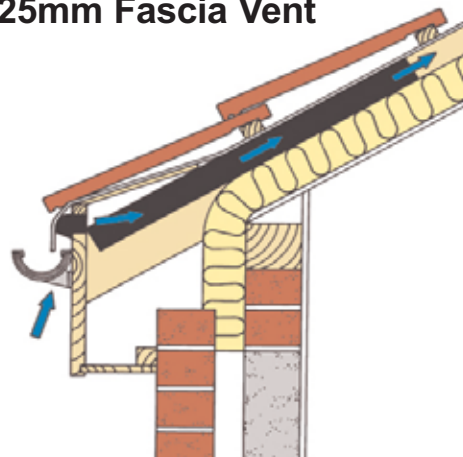
Full instructions are provided with each pack. For fascia board heights please contact our sales office with the following information: tile type, fascia thickness and roof-pitch.



**Boxed Soffit
10mm Fascia Vent**



**Boxed Soffit
25mm Fascia Vent**



Eaves Vent Packs

Features

- Quick and easy to fit.
- Everything in one box for convenience.
- In two sizes - each sufficient for 6 metres of eaves.
- Will suit rafter centres up to 600mm or up to 450mm without cutting.
- For new build or re-roofing situations.
- Tray maintains a clear air path from gutter to roof space above loft insulation.
- Tray acts as tilting fillet and prevents felt ponding behind gutter.
- Lightweight and durable.
- Fascia vent prevents entry of birds and large insects.
- Complies fully with relevant Building Regulations and British Standards.

Performance

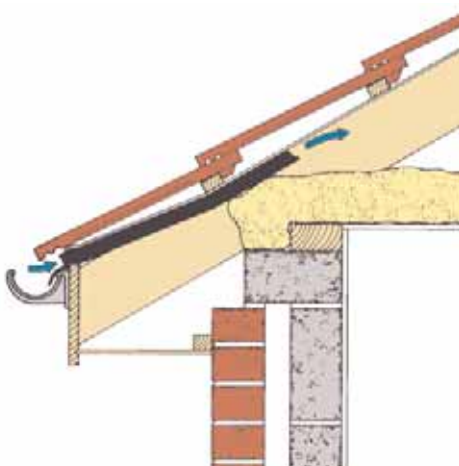
Provides the equivalent of a continuous 10mm opening (10,000mm² per metre run).

Installation

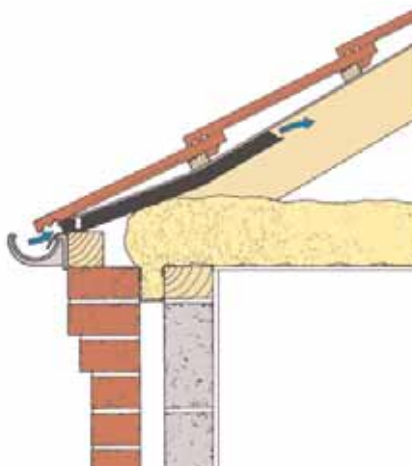
An air duct tray is cut down the groove marked in the rafter upstand, the left hand section being nailed on to the first rafter inside the brickwork at the right hand verge. Complete trays are then fixed over each rafter, snapping the interlocking sections together. The remaining section of the first tray is used at the left hand verge. A section of underlay (300mm deep) is fitted from gable wall to first rafter at both verges to provide a skirt into the gutter. Fascia vents are nailed continuously along fascia on top of trays, then the underlay is laid across the roof ensuring that the fascia vent is not blocked. Tiles are then fixed in the normal manner. Full instructions are provided with each pack. For fascia board heights please contact our sales office with the following information: tile type, fascia board thickness and roof pitch.



Boxed Soffit



Corbelled Eaves



Description

A complete pack comprising Air Duct Trays and Fascia Vents for eaves ventilation over the fascia in new build or re-roofing situations.

Material

Air Duct Tray - High Impact Styrene.
Fascia Vent - Polypropylene.

Colour

Black.

Packaging

450 Pack contains 14 Air Duct Trays and 12 Fascia Vents - sufficient to cover 6 metres of eaves at 450mm rafter centres.

600 Pack contains 10 Air Duct Trays and 12 Fascia Vents - sufficient to cover 6 metres of eaves at 600mm rafters centres.

Product Codes - Cartons

KP964700 (for 600mm rafter centres).
KP964600 (for 450mm rafter centres).

Dimensions

Air Duct Trays:
635mm long x 500mm wide x 25mm deep (600mm).

475mm long x 500mm wide x 25mm deep (450mm).

3 in 1 Eaves Vent Pack



Description

A complete 6m pack (comprising of Fascia Vents, Felt Support Trays and Roll Out Rafter Tray) for eaves ventilation over the fascia. Providing a simple and economic solution to eaves ventilation.

Material

Fascia Vent - Polypropylene.
Felt Support Tray/Roll Out Rafter Tray - PVC

Colour

Black.

Packaging

Each pack contains 6 Fascia Vents, 10 Felt Support Trays and 1 Roll Out Rafter Tray - sufficient to cover 6 metres of eaves.

Product Codes - Cartons

KP990200 - 10mm Vent 300mm wide tray (6m).

KP990400 - 10mm Vent 400mm wide tray (6m).

KP966700 - 25mm Vent 300mm wide tray (6m).

KP966800 - 25mm Vent 400mm wide tray (6m).

KP984600 - Felt Support Tray - 50 off available separately.

Features

- Quick and easy to install.
- Suitable for new build or re-roofing situations.
- Suitable for rafter centres 400mm - 600mm wide.
- Provides a clear ventilation channel above the insulation.
- Prevents felt ponding behind the gutter.
- Lightweight and durable.
- Complies fully with relevant Building Regulations and British Standards.
- 300mm and 400mm wide rafter trays available.

Performance

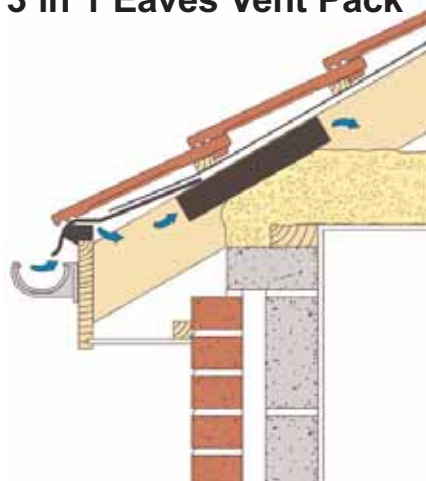
Provides the equivalent of a continuous 10mm or 25mm opening (10,000mm² and 25,000mm² per metre run respectively) at eaves level.

Installation

The first Fascia Vent is nailed to the top of the fascia at the right hand edge of the eave and then subsequent units fixed continuously along the fascia. The Roll Out Rafter Tray is then nailed or stapled to rafters, ensuring correct positioning to provide a ventilation channel above insulation. The Felt Support Tray is placed on top of the Fascia Vent and nailed through the top edge of the tray into the rafter.



3 in 1 Eaves Vent Pack



Roll Out Rafter Trays

Features

- Quick and easy installation.
- Lightweight and durable.
- Available in two sizes, each sufficient for 6 metres of eave.
- Suits 450mm and 600mm rafter centres.
- Roll can be closed up to suit 400mm rafter centres.
- For new build or re-roofing situations 12.5° pitch and above.

Performance

Ensures a clear ventilation channel above insulation and provides the equivalent of a continuous 10mm or 25mm opening when installed along whole length of eaves.

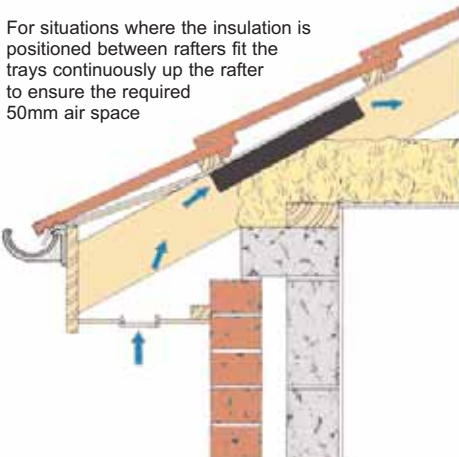
Installation

Roll Out Trays are nailed or stapled to rafters, ensuring correct positioning to provide a ventilation channel above insulation. For low pitch roofs and/or where depth of insulation is greater than 150mm, two trays may be joined together. In over fascia vent systems The Roll Out Rafter Tray may be positioned hard against the back of the fascia board. If used with soffit vent systems the tray should be kept a minimum of 25mm from the back of the fascia board. An underlay support tray or tilting fillet should be positioned at the fascia to prevent ponding. Full fixing instructions are provided with each roll.

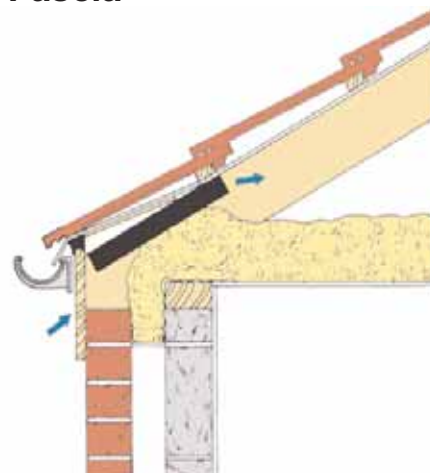


Boxed Soffit

For situations where the insulation is positioned between rafters fit the trays continuously up the rafter to ensure the required 50mm air space



Fascia



Description

A combined insulation interrupter and roof space ventilator in a single roll. Each roll is suitable for 450mm and 600mm rafter centres and for both 10mm and 25mm roof void ventilation.

Material

PVC.

Colour

Black.

Packaging

In cartons of 10 rolls of 6 metres in 300mm width, and 5 rolls of 6 metres in 600mm widths

Product Codes - Cartons

KP971500 (300mm width)
KP975700 (400mm width)
KP971600 (600mm width)

Dimensions

6 metres long x 300mm wide x 55mm deep.
6 metres long x 400mm wide x 55mm deep.
6 metres long x 600mm wide x 55mm deep.

For situations where the insulation is positioned between rafters fit the trays continuously up the rafter to ensure the required 50mm air space.

For low pitch roofs, 2 trays fitted continuously up the rafters may be required to prevent the roof insulation from touching the underside of the underlay

Related Products

In closed rafter situations this product should be used in conjunction with Klobber ventilation products; for example, Fascia Vents.

Rafter Trays



Description

A combined insulation interrupter and roof ventilator with integral insect screen.

Material

High Impact Styrene.

Colour

Black.

Packaging

In packs of ten trays, sufficient for 6 metres at 600mm rafter centres, 4.5 metres at 450mm rafter centres. Ten packs per carton.

Product Codes - Cartons

KP964900 (600mm rafter centres) - 100 trays.

KP964800 (400-450mm rafter centres)-100 trays.

Dimensions

620mm long x 430mm wide x 18mm deep (600mm).

450mm long x 430mm wide x 18mm deep (450mm).

Related Products

In closed rafter situations this product should be used in conjunction with Klover eaves ventilation products; for example, Fascia Vents, Soffit Vents or Easy-Fit Soffit Strips.

Features

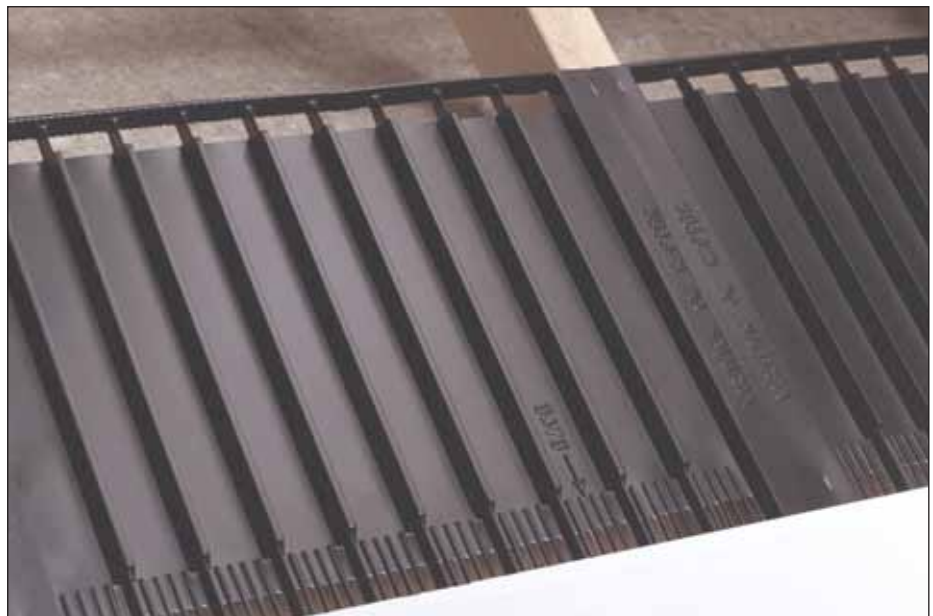
- Quick and easy to install.
- Suitable for both closed and open rafters.
- Available in two sizes to suit 600mm and 400-450mm rafter centres.
- For new build or re-roofing situations, 15° pitch and above.
- Lightweight and durable.
- Prevents entry of birds and large insects.

Performance

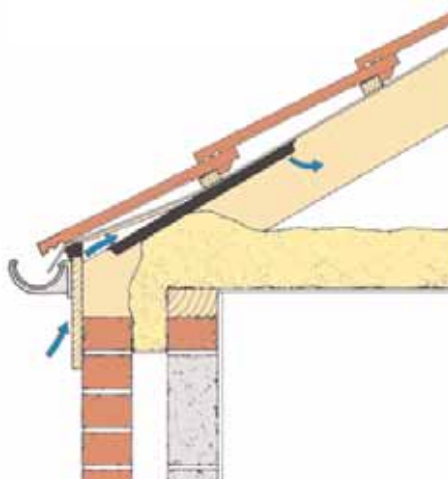
Ensures a clear ventilation channel above insulation and provides the equivalent of a continuous 10mm opening when installed along whole length of eaves (10,000mm² per metre run).

Installation

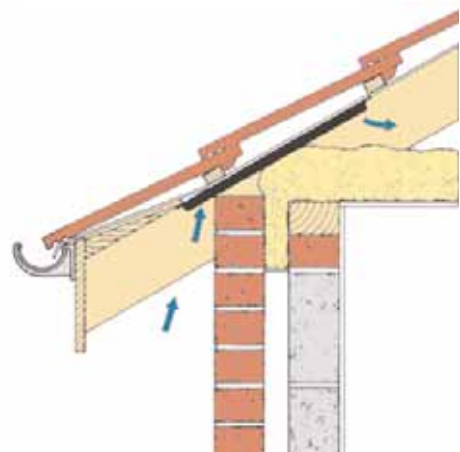
Trays are nailed or stapled to rafters, ensuring the correct positioning to provide a ventilation channel above insulation. Direction arrow on the tray should be pointing down towards the eaves. In open rafter situations, trays should be fitted 30-35mm clear of the front of the brickwork to ensure adequate ventilation. Full instructions are provided with each pack.



Fascia Only



Open Rafter



Eaves Filler Comb

Features

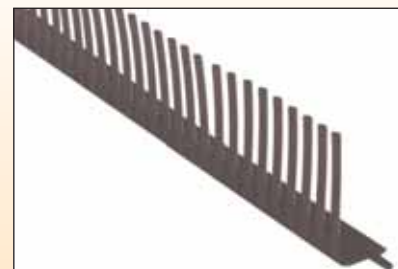
- Protects against entry of birds, vermin and debris.
- Comb adjusts to suit any profile of tile.
- Fixing slots allow easy fixing.
- Lightweight and durable.

Performance

Allows airflow and prevents the entry of birds and vermin into the batten cavity.

Installation

Position Eaves Filler Comb on top of fascia board/vent and simply nail through into the top of the fascia board, along the whole length of the eaves, with the comb facing outwards.



Description

A versatile eaves filler comb to protect against the entry of birds, vermin and debris, through gaps left by the tile profile at the eaves.

Material

Polypropylene.

Colour

Black.

Dimensions

1 metre long.

Packaging

200 one metre lengths per carton.

Product Codes - Cartons

KP965300 - 200 metres (carton).

Eaves Closer

Features

- Protects against entry of birds and vermin into the counter batten cavity.
- Maintains low level air movement in the batten cavity.
- Suitable for use with all clay and concrete tiles and natural/manmade slates.
- Quick and easy to install.

Installation

The units are nailed, either direct to the counter battens or an edge tile batten, with large head corrosion resistant nails.



Description

A simply installed, one-piece perimeter closer detail for counter batten roof systems, the mesh faced PVCu unit offers an effective barrier against intrusive pests, yet maintains natural air movement and moisture run-off below the roof finish.

Material

PVCu.

Colour

Black.

Packaging

20 x 2.5 metre lengths per carton.

Product Codes & Dimensions

KP3030 - 30 x 30 x 2.5m

KP3050 - 30 x 50 x 2.5m

KP3060 - 30 x 60 x 2.5m

KP3070 - 30 x 70 x 2.5m

KP3090 - 30 x 90 x 2.5m

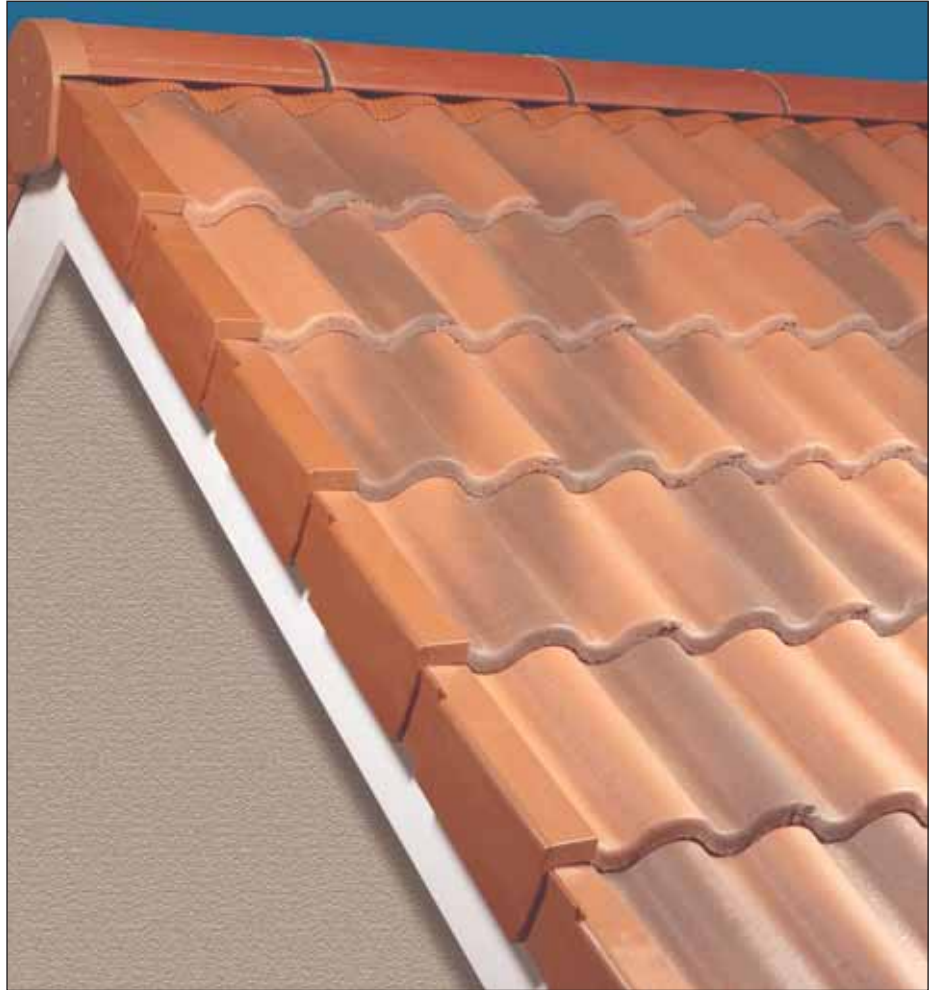
Tile Valley Troughs

Slate Valley Troughs

Bonding Strip

Uni-Finial

Underlay Support Tray



Within this section is included a range of high performance valley troughs manufactured from GRP which provides the specifier and end user with an alternative to traditional lead.

The advantages of these universally designed Klover products are well detailed under the 'FEATURES' section. They can provide the greatest protection for the roof at one of its most vulnerable points and are quick and easy to install.

The Uni-Finial is a cost effective alternative to clay and concrete finials. Its traditional design complements and enhances both clay and concrete ridge tiles with quick and easy installation.

All the products within this roofing accessories section comply fully with current NHBC, Building Regulations and British Standards, including, in the case of Valley Troughs, the passing of stringent fire exposure tests.

Features

- Traditional design complements both concrete and clay ridge tiles.
- Quick and easy installation.
- Mortar free, allowing all weather fixing.
- Compatible with universal angle or half round ridge tiles.
- Encapsulated fixing mechanism for secure fixing.
- Cost effective alternative to clay or concrete finials.
- Lightweight and durable.
- Neat, attractive appearance.

Installation

Drill 6mm hole in the desired position on the ridge tile. Push the protruding stud through the hole in the ridge and secure on the underside using the wing-nuts provided, ensuring a tight fit and no gap between the finial base and the ridge tile. Fix ridge tile as required.



Description

Designed to provide a neat attractive and low cost solution to finishing off the roof line.

Material

UV protected medium density polyethylene.

Colour

Terracotta, Slate Grey or Brown.

Packaging

5 Bases per carton.
5 Tall Ball Finials per carton.
5 Fleur-de-Lys Finials per carton.

Product Codes - Cartons

Tall Ball Finial Slate Grey - KR996130.
Tall Ball Finial Terracotta - KR996134.
Tall Ball Finial Brown - KR996136.
Fleur-de-Lys Finial Slate Grey - KR959930.
Fleur-de-Lys Finial Terracotta - KR959934.
Fleur-de-Lys Finial Brown - KR959936.
U/A Base Slate Grey - KR996230.
U/A Base Terracotta - KR996234.
U/A Base Brown - KR996236.
H/R Base Slate Grey - KR996330.
H/R Base Terracotta - KR996334.
H/R Base (Brown) - KR996336.

Underlay Support Tray

Features

- Suitable for new build and refurbishment situations.
- Prevents ponding of water behind the fascia where underlay can sag between the rafters.
- Provides clear drainage point into gutter, directing water away from the underlay.
- Easy to install and economic replacement for rotting underlay at eaves.

Installation

The Underlay Support Tray can be nailed or screw fixed directly on to the rafter. Each tray should be overlapped by a minimum of 100mm. Lay underlay over Underlay Support Tray finishing at the fascia. Batten out roof and tile/slate as normal.

Please note:

If using profile tiles, Klober eave filler comb can be fitted directly onto the Underlay Support Tray.



Description

A support tray to ensure any underlay is not carried into the gutter, and prevents water ponding behind the fascia, thereby reducing long term maintenance to the eaves of a building.

Material

PVC.

Packaging

20 x 1.5 metre lengths per pack.
25 x 1.5 metre lengths per pack.

Product Code

KP973800 - (30m)
With flexi hinge 1.5m

KP973900 - (30m)
Contract w/o hinge 1.5m

KP3001-0450 - PVC flat 1.275m
KP3002-0450 - PVC preformed 1.275m

GRP Valley Troughs, Bonding Strip & Secret Gutter



Valley Trough Description

A complete range of universally designed, high performance valley troughs for tile or slate roofs, in order to provide a weatherproof junction. Each product is for use with roofs constructed in accordance with the relevant requirements of BS5534: Part 1: (Slating and Tiling) and BS8000: Part 6: (Workmanship on Building Sites).

Material

UV stabilised GRP (Glass Reinforced Polyester)

Colour

Lead Grey, matt finish

Dimensions

3m long x 400mm wide x 1.1mm thick (965500)
3m long x 360mm wide x 1.1mm thick (965200)
3m long x 290mm wide x 1.2mm thick (965600)
3m long x 225mm wide x 1.0mm thick (965700)

Packaging

Banded in packs of 5 x 3 metre lengths.

Product Codes - Bundles

KR965500 (Tile Valley Trough 400)
KR965200 (Tile Valley Trough 360)
KR965600 (Slate Valley Trough)
KR965700 (Bonding Strip)

Secret Gutter Description

A high performance secret gutter for use with all flat interlocking tile profiles.

Material

UV stabilised PVC.

Colour

Lead Grey, matt finish

Dimension

3m long x 97mm wide x 1.1mm thick.

Packaging

Banded in packs of 5 x 3 metre lengths.

Product Codes - Bundles

KR972000 - 15 metres.

Valley Trough Features

- Designed for optimum performance to protect the roof at its most vulnerable part, i.e. junction of the two slopes.
- Cost effective alternative to lead, avoiding the problems associated with this traditional material.
- Lightweight and flexible yet extremely durable.
- Quick and easy to install.
- Fire tested to comply with BS476: Part3: 1975:
- External Fire Exposure Roof Test.
- In easy-to-cut 3 metre lengths.
- UV resistant.

Installation

Minimum rafter pitch 17.5°.

Maximum rafter pitch 60°.

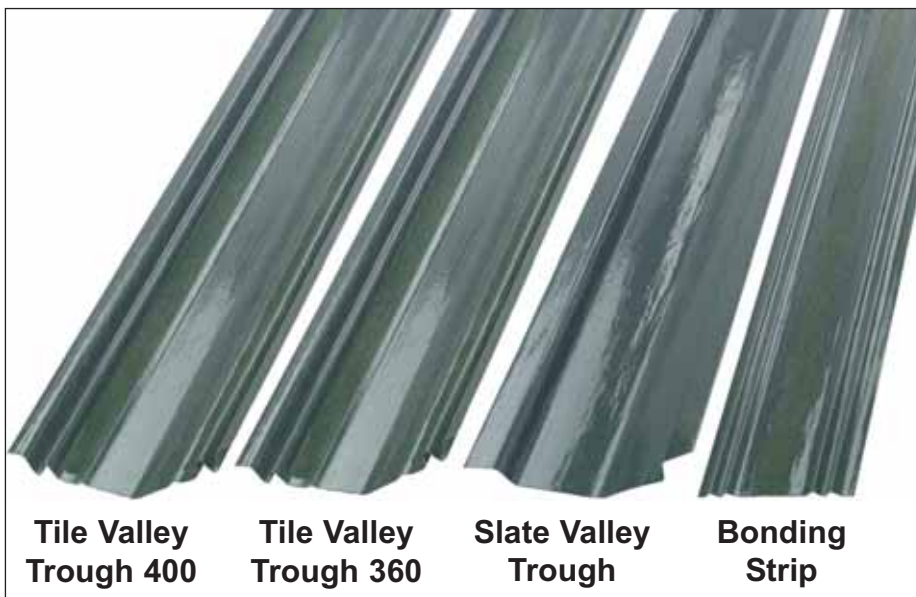
Valleys can accommodate a 15° maximum pitch variance

between roof slopes. Suitable for plan angles of 90° only.

Allow 150mm overlap for rafter pitches 40°-60°.

Allow 200mm overlap for rafter pitches 22.5°-39.5°.

Allow 250mm overlap for rafter pitches 17.5° -22°.



Secret Gutter Features

- Acts as a secondary line of defence against wind driven rain at a vulnerable point on the roof.
- Anti-capillary rib adds to extra water tight security.
- Cost-effective alternative to lead.
- Lightweight and durable.
- Quick and easy to install.
- Available in easy-to-cut 3m lengths.

Installation

Minimum roof pitch 15°.

Allow 150mm overlap for pitch 30° and above.

Allow 200mm overlap for pitch 22.5°-29.5° inclusive.

Allow 250mm overlap for pitch 17.5°-22°.

Allow 300mm overlap for pitch 15°-17°.

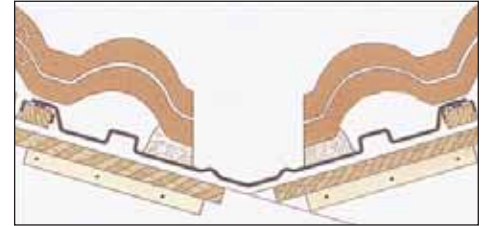


Tile Valley Trough 400

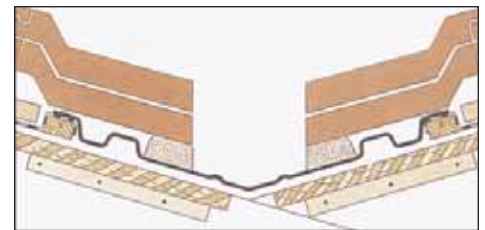
A high quality valley trough for use with both interlocking and plain tiles. Pronounced upstands and wider secondary drainage channels provide extra protection against water penetration and mortar blockage. The two firmly bonded sanded strips allow strong mortar adhesion.

Fixing Instructions

1. Lay 19mm support board cut between rafters and supported on 38 x 25mm noggins nailed to rafters. Top surface of support board must be flush with top of trussed rafter. Alternatively a 6mm ply wood may be installed on top of the rafters.
2. Position the valley battens along either side of valley.
3. Lay underlay to main roof tiles as normal to finish on top of valley battens.
4. Abut tiling battens to valley on top of the support boards and fix into position.
5. Lay valley trough, allowing overlap at joints cut to suit at ridge and eave.
6. Using clout headed nails, nail to valley battens through 8mm drilled holes, at approx 1 metre intervals.
7. Lay roof tiles up to valley and cut to rake, leaving gap of 125mm between cut tiles to form open channel.
8. Bed tiles with mortar to valley trough sanded strips, ensuring water channels are clear and interlocks are not blocked.



Tile Valley Trough 400



Tile Valley Trough 360

Tile Valley Trough 360

Similar in design to the 400 but with slightly less width.

Fixing Instructions

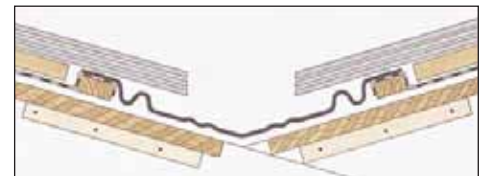
Follow instructions for the Tile Valley Trough 400 above.

Slate Valley Trough

Designed for use with natural or man-made slates. Profile allows slates to be laid evenly in conventional manner.

Fixing Instructions

Follow fixing instructions above, except that slates do not need to be bedded with mortar, but can be laid 'dry'.



Slate Valley Trough

Bonding Strip

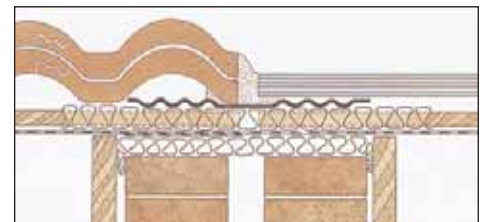
An effective method of jointing adjacent roof slopes, whether of similar or different materials ie slate and tile (not suitable for use with Cambrian Slates). Features a firmly bonded sanded strip to ensure strong mortar adhesion.

Fixing Instructions

Make good felt and battens over party wall area, with a minimum 150mm overlap of old felt with the new. Prepare adjoining roof by cutting tiles/slates in a straight line halfway over party wall. Remove nails from adjoining tiles/slates in contact with wall. Slide Klobber Bonding Strip into position between battens and tiles/slates. Extend over fascia board into gutter and allow overlap at joints.

Using clout headed nails, nail to battens through 8mm drilled holes, at approx 1m intervals. Bed new tiles/slates with mortar through Bonding Strip.

Note: Where batten sizes differ due to varying roof coverings ie. slate & tile, we recommend the batten heights should be made level.



Bonding Strip

Secret Gutter Fixing Instructions

Where final rafter is greater than 55mm from the abutment wall.

1. Finish underlay flush against wall.
2. Finish tiling battens 55mm from wall and nail fix to final rafter.
3. Fix tilting fillet to support lead gutter outlet at base of secret gutter.
4. Fix a code 4 or 5 lead secret gutter outlet onto tilt fillet.
5. Starting at eaves ensure that adjacent gutter sections overlap with the section below as illustrated opposite.
6. Using clout headed nails, nail to tiling battens through 8mm drilled holes at approx 1 metre intervals.
7. Lay slates as normal ensuring a maximum gap of 15mm to wall. It may be necessary to remove the end nib to ensure that the tile sits properly. Where the slate has a continuous nib it will be necessary to remove part of the nib using an angled grinder.
8. Dress a code 4 or 5 lead stepped cover flashing closely over the slates by not less than 150mm.

Note: All leadwork to be carried out in accordance with LSA recommendations.



Secret Gutter

Where final rafter is less than 55mm from abutment wall.

1. Nail a 50 x 50mm support batten to the side and flush with the top of the last rafter.
2. Finish underlay flush against the wall.
3. Finish tiling battens 55mm from wall and nail fix to support batten.

Please also refer to notes 3-8 in Secret Gutter fixing instructions.

Uni-Dry
Ventilating Ridge

Uni-Dry Verge

Uni-Line® Continuous
Dry Verge

Roll-Fix® Kit



Dry roofing is the term used to describe the mechanical fixing of certain areas of the roof without the use of mortar.

Traditional mortar bedding is still the most widely used fixing method in England and Wales, compared to Scotland where currently 80% of roofing is mechanically fixed. However, the increased incidence of storms over the last few years has clearly highlighted the unreliability of mortar, and the gradual switch to dry roofing in Britain looks set to gather even greater momentum. Considering all the advantages, it is not too difficult to see why.

Why Dry?

BS5534; Part 1 draws attention to the problems of using mortar to secure vulnerable areas of the roof, such as the verge, by stating that 'no reliance should be placed on the tensile or sheer strength of mortar used in filling and bedding, where there is a risk of differential movement causing mortar to crack'.

In contrast, because a dry roofing system is mechanically fixed, it is quite secure and offers better resistance to wind uplift and water penetration. Also fixing is not a problem in bad weather, because unlike mortar, dry roofing allows all-weather working even in wet and frosty conditions.

Fixing is fast and simple, without the mess and inconvenience of mixing, carrying and using mortar, and with no special skills or tools required. Consequently dry roofing can prove highly cost-effective. It also means a more consistent appearance, with none of the longer-term maintenance problems and costs associated with the mortar method.

Klober Uni-Dry Roofing System

The Klober Uni-Dry Roofing System enjoys all the benefits of dry roofing with a few more of its own. The most important of these is its universal design. It is, in fact, the first U.K. dry roofing system not related to specific manufacturers' tiles. The Uni-Dry Ventilating Ridge, for instance, works with the majority of pitched roofing materials including natural slate, fibre cement slate and most profiles of roof tile. It also fits with most half round and angled ridge tiles, whilst the Uni-Dry Verge suits most interlocking tiles 280mm to 345mm batten gauge - making life easier for specifiers, installers and stockists, and leading to greater efficiency and flexibility all round.

Uni-Dry Verge

Features

- Secure, clip fixing avoids wind uplift problems.
- Mortar-free, eliminating wet trades and associated problems.
- Allows all weather fixing.
- The one system suits most makes and profiles of single lap tile.
- Completely weatherproof and maintenance free.
- Quick and easy to fix, requiring no special tools.
- Compatible with any ridge system, wet or dry.
- Neat, attractive appearance.
- Suitable for new build or refurbishment situations, for roofs 12.5° to 90°.
- Unaffected by settlement or differential movement.
- Prevents entry of birds and large insects.

Installation

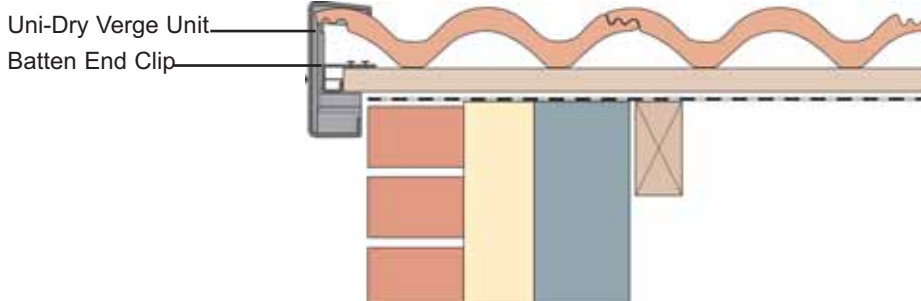
Tiling battens are extended to 20mm beyond gable wall and a Batten End Clip nailed to the end of every batten.

If batten end clips are not used we recommend that the battens are extended 30mm over the gable and 40mm annular ring shank nails are used to fix the verge units into the batten ends.

An Eaves Closure is nailed into the end of the fascia board. The first Uni-Dry Verge Unit is slid over the Eaves Closure and bottom tile, then nailed into the batten end through the Batten End Clip. As successive verge tiles are laid, a Dry Verge Unit is engaged with the one below and nailed into position. A Ridge Closure is inserted into the last unit, interlocking the combs of each verge at the apex. The Ridge End Cap can then be fitted with the screw provided, through on to the ridge batten. Full fixing instructions are included in each pack.

Compatibility

Suits most interlocking tiles between 280-345mm gauge. If you have any queries on tile suitability please contact our Technical department.



Description

Designed to provide a simple, secure method of mechanically fixing verge tiles to reduce the risk of damage caused by the wind uplift and water penetration. Its neat, interlocking design provides a consistent appearance, requiring no maintenance.

Material

Dry Verge unit - rigid PVC.
Eaves Closure - rigid PVC.
Ridge Closure - rigid PVC.
Ridge End Cap - polypropylene.
Batten End Clip - Stainless Steel.

Colours

Slate Grey	Brown
Terracotta	White

Packaging

Dry Verge Unit (left hand or right hand)
10 units per pack; 5 packs per carton.

Batten End clip 50 clips per pack;
10 packs per carton.

Ridge End Pack Contains:
2 ridge end caps and 4 screws;
10 packs per carton.

Eaves Ridge Pack Contains:
2 ridge closures 2 eaves closures and nails;
20 packs per carton.

Product Codes - Cartons

Dry Verge Unit	Uni-Ridge End Cap
Left Hand	Half Round
KR976530 Slate Grey	KR977230 Slate Grey
KR976534 Terracotta	KR977234 Terracotta
KR976536 Brown	KR977236 Brown
KR976577 White	KR977277 White

Right Hand	Universal Angle
KR977030 Slate Grey	KR977330 Slate Grey
KR977034 Terracotta	KR977334 Terracotta
KR977036 Brown	KR977336 Brown
KR977077 White	KR977377 White

Eave Ridge Cartons

KR973330 Slate Grey
KR973334 Terracotta
KR973336 Brown
KR973377 White

Related Products

The Klobber Uni-Dry Verge System may be used in conjunction with a wet or dry ridge system of your choice.



Description

Designed to comply with the mechanical ridge fixings of BS5334, and provides a secure maintenance free method of fixing ridge tiles to reduce the risk of damage caused by wind uplift and water penetration. It produces a neat ridge line of traditional appearance and also provides high level ventilation, in accordance with BS5250 and Building Regulations.

Material

Ridge Comb - rigid PVC and non woven acrylic nitrile fibre.

Ridge Batten Strap - stainless steel.

Ridge to Ridge Seal - polypropylene.

Clamping Plate - stainless steel.

Ridge to Ridge Seal Drive Screw - stainless steel with elastometric washer and neoprene washer.

Dry Ridge Spacers - polypropylene (with Angle Pack only).

Colour

Ridge Comb - slate grey.

Ridge to Ridge Seal - slate grey.

Packaging

Each carton contains 3 packs.

Each pack contains:

5 metre sections of Ridge Comb,
10 Ridge to Ridge Seals,
10 Clamping Plates,
10 Ridge Seal Screws with Washers,
10 Ridge Batten Straps,
20 Dry Ridge Spacers (Angle Pack only).

NB. 300mm Clay Ridge packs will contain sufficient components to give 5m of ridge.

Product Codes - Cartons

Carton Code KR974600 - Half Round Ridge
Carton Code KR966800 - Angle Ridge
Carton Code KR967300 - 300mm Clay Half Round Ridge.

Additional Fixing Packs (if required)

Each pack contains 10 clamping plates, 10 Ridge Seal Screws with washers, 10 Ridge to Ridge Seals and 10 Ridge Batten Straps.

Compatibility

The Klobber Uni-Dry Ridge system is suitable for most makes of roof tile and slates, except Redland Delta and Deep Profile Clay Pantiles. To ventilate flat tiles with Half Round ridge tiles Klobber Dry Ridge Spacers must be purchased separately.

NB. The system is not suitable for use with gas flues, or in conjunction with Ridge Vent Terminals.

Common Tile Heights

Up to 10mm

Fibre Cement Slates.

11 - 20mm

Redland Cambrian, Marley Monarch, Sandtoft Britlock, Natural Slate.

21 - 30mm

Redland 49, Redland Stonewold II, Redland Richmond, Redland Saxon, Redland Mini Stonewold, Marley Modern, Marley Ludlow Plus, Sandtoft Standard, Forticrete V2, Plain Tiles.

31 - 40mm

Redland Renown, Redland D Roman, Marley Double Roman, Marley Ludlow Major, Sandtoft Lindum, Russell Cheviot.

41 - 50mm

Redland Regent, Redland Grovebury, Marley Mendip, Marley Bold Roll, Sandtoft Bold Roll, Russell Derwent, Russell Pennine, Sandtoft Double Pantile.

51 - 60mm

Redland Norfolk Pantile, Marley Anglia Plus, Sandtoft Shirepantile.

Related Products

The Klobber Uni-Dry Ventilating Ridge system may be used in conjunction with a wet or dry verge system of your choice. For a uniform appearance, the Uni-Dry Ventilating Ridge should be used with the Uni-Dry Verge system. To ventilate flat tiles with Half Round ridge tiles Klobber Dry Ridge Spacers must be purchased separately.

KR974700 - HRR Additional Fixing Pack.

KR967100 - UAR Additional Fixing.

KR967200 - Pack of 20 Dry Ridge Spacers.

Uni-Dry Ventilating Ridge

Features

- Suits most half round and angled ridge tiles.
- Secure mechanical fixing avoids wind uplift problems.
- Allows all weather fixing.
- Mortar-free eliminating wet trades and associated problems.
- Completely weatherproof and maintenance free.
- The one system fits most makes of roof tile and slates.
- Available in slate grey.
- Suitable for new build or re-roofing situations for roofs 15° to 45° pitch.
- Compatible with any verge system, wet or dry.
- Quick and easy to fix.
- Incorporates high level ventilation.
- Neat attractive appearance.
- Will accommodate settlement or differential movement of the roof structure.
- Prevents entry of birds and large insects.
- Complies fully with relevant Building Regulations and British Standards.

Performance

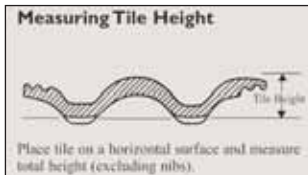
For most tiles it provides high level ventilation, equivalent to at least 5mm continuous opening.

Installation

To allow ventilation, underlay is left 30mm short of apex on each side. Before top tiling battens are fixed, a ridge tree batten is secured in position by a Ridge Batten Strap nailed to each rafter. If the Klobber Uni-Dry Verge system is being used, the ridge batten must overhang the gable wall by 35mm to allow the Ridge End Cap to be fixed. If using a Block End Ridge, no overhang is required. Roof tiles are laid in the normal manner. The Ridge Combs are placed over the ridge tree batten and nailed along the entire length of the ridge. Ridge tiles are positioned, connected by Ridge to Ridge Seals, then secured by hammering the special drive screw through the metal clamping plate and the Ridge to Ridge Seal into the ridge tree batten. Ridge ends are finished with either a Uni-Dry Verge system, or a block end ridge tile. Full fixing instructions are included in the Uni-Dry Ventilating Ridge pack.



Dimensions in mm. Ridge batten should be 50mm wide.
 Where a Ridge Board exists, it may need to be adjusted to correspond with the above conditions.
 For trussed rafters above 40° pitch with tile height 10/20mm it may be necessary to cut off a small portion of the truss apex.
 Suitable with most concrete Ridge Tiles and Clay Half Round Ridge Tiles.
 NB. Table is based on use of the Klobber Drive Screw.

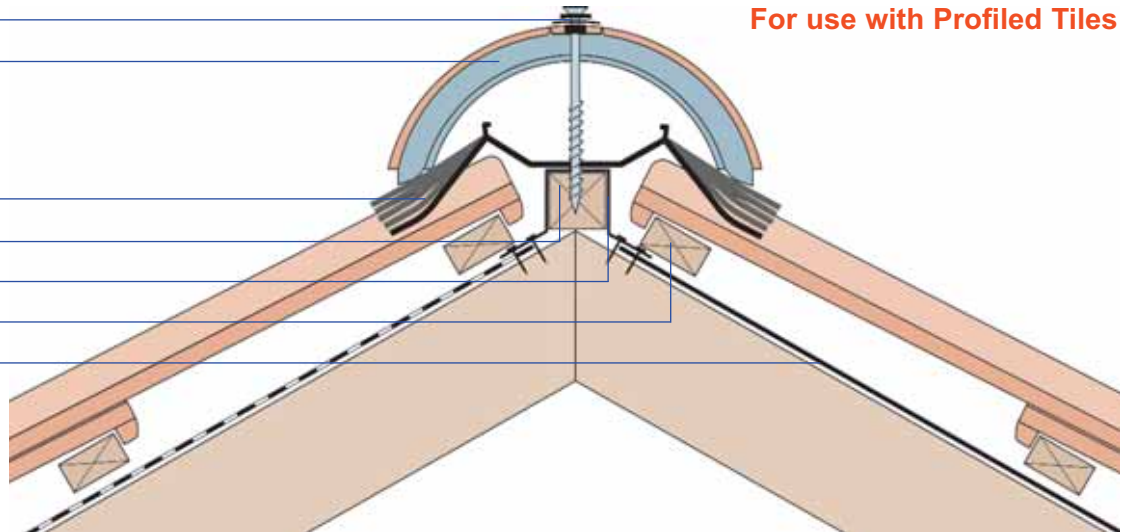


Tile Height	Universal Angle Ridge Tile with Flat Tiles - with Spacers												
	15°	17½°	20°	22½°	25°	27½°	30°	32½°	35°	37½°	40°	42½°	45°
Up to 10	-	-	50	50	38	38	38	38	38	38	38	-	-
11-20	75	75	75	75	50	50	50	38	38	38	38	38	38
21-30	-	100	100	75	75	75	75	75	75	50	38	38	38
Tile Height	Half Round Ridge Tile with Flat Tiles - with Spacers												
	15°	17½°	20°	22½°	25°	27½°	30°	32½°	35°	37½°	40°	42½°	45°
Up to 10	-	-	50	38	38	38	38	38	38	38	38	-	-
11-20	75	75	75	50	50	38	38	38	38	38	38	38	38
21-30	-	75	75	75	75	75	50	50	50	38	38	38	38
Tile Height	Clay Half Round Ridge Tile with Flat Tiles - with Spacers												
	15°	17½°	20°	22½°	25°	27½°	30°	32½°	35°	37½°	40°	42½°	45°
Up to 10	-	-	75	75	75	50	50	38	38	38	38	38	38
11-20	100	100	75	75	75	75	75	50	50	38	38	38	38
21-30	-	100	100	100	100	100	75	75	75	75	75	75	75
Tile Height	Half Round Ridge Tile with Profiled Tiles - without Spacers												
	15°	17½°	20°	22½°	25°	27½°	30°	32½°	35°	37½°	40°	42½°	45°
21-30	-	75	75	50	50	50	50	38	38	38	38	38	38
31-40	-	75	75	75	75	50	50	50	50	38	38	38	38
41-50	100	100	100	75	75	75	75	50	50	50	50	38	38
51-60	-	100	100	100	100	75	75	75	75	50	50	50	50

Clamping Plate
 Half Round Ridge-to-Ridge Seal

For use with Profiled Tiles

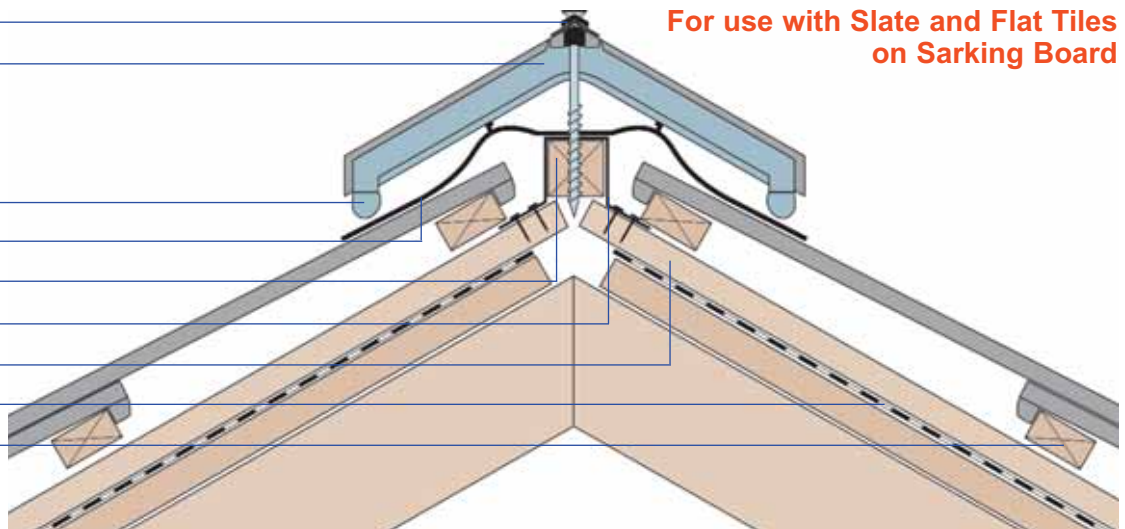
Uni-Dry Comb
 Ridge Batten
 Ridge Batten Strap
 Batten
 Underlay



Clamping Plate
 Universal Angle Ridge-to-Ridge Seal

For use with Slate and Flat Tiles on Sarking Board

Ridge Spacer
 Uni-Dry Comb
 Ridge Batten
 Ridge Batten Strap
 Counter Batten
 Underlay on Sarking Board
 Batten



Roll-Fix® Kit Ridge & Hip



Description

Roll-Fix is manufactured using a highly vapour-permeable polypropylene membrane, a mesh fabric with a high ventilation ratio yet completely weatherproof. The central, flat 'spine' of the roll sits on the ridge batten, while the two corrugated-profile side flaps are designed to drape down over the top row of tiles on either side as the roll is opened out along the ridge line. The lower corrugated portion of each side flap, including the visible lower edge, is finished with a durable, U/V-stable coloured aluminium coating (red, dark brown, anthracite) or an applied copper finish.

Colour & Finishes

Roll-Fix is available in four colour coated finishes - terracotta, dark brown and anthracite - and, for striking detail effects, a genuine copper-coated finish that patinates over time.

Dimensions

Roll-Fix is available in 295 mm roll width to provide the minimum 75 mm lap over the top of the uppermost course of tiles/slates.

Weight

As a guide for handling and stacking, each 5m roll weighs about 2 kg; a box weighs approximately 3.5 kg.

For further details and technical data please consult our Dry-Fix Brochure.

Product Codes

5m per box

- Concrete Universal Ridge Seal - KR5000
- Concrete 1/3 Round Hip Seal - KR5001
- Concrete Uni Angle Hip Seal - KR5002
- Clay 1/2 Round Ridge Seal - KR5003
- Clay Plain Angle Ridge & Hip seal - KR5004

Colour Codes

- Anthracite - 0402
- Brown - 0200
- Terracotta - 0100

Each kit contains

- 5m Ridge/hip roll
- Seals
- Batten straps
- Screws
- Washers
- Clamping plates
- Cro Clips (Hip packs only)

Roll-Fix® Kit dry ridge and hip is a universal ventilated dry ridge and hip system suitable for ventilating most concrete and clay ridge/hip tiles.

Features

- Quick and easy to install - no special tools required
- Universal application - fits most concrete/clay ridge/hip and tile/slate profiles
- No mortar required
- Ventilates to BS5250
- UV stable
- Available in 4 colours
- Water resistant
- Complies with BS5534 for mechanical fixing



Uni-Line Continuous Dry Verge Range

'T' Strip

To suit most Plain and Profile Concrete Interlocking Tiles.

For Bold Roll and Double Pantile fit the T Strip on top of batten.

'S' Strip

Suitable for use with All Fibre Cement, Natural and Synthetic Slates. Up to 8mm in thickness.

SCOT STRIP

Suitable for use with products shown on S Strip, on boarded roofs with top of batten fixing

Features

- Quick and easy to install.
- Maintenance free.
- Ideal for use with UPVC bargeboards, fascias & soffits.
- Gives extra security at verge against wind damage.
- Neat, attractive finish.
- Can be used on existing roofing (T Strip only).

Material

UPVC - U.V. Stabilised

Colour / Product Codes

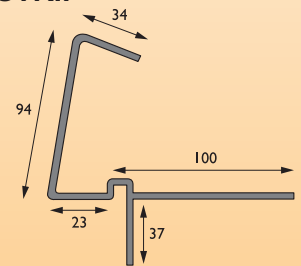
T STRIP - Black	KR980376
T STRIP -White	KR980377
T STRIP - Brown	KR980378
S STRIP - Black	KR980476
SCOT STRIP - Black	KR980676

Packaging

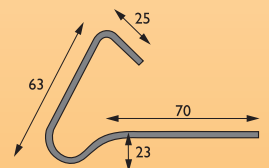
4 x 5m Lengths per pack

Dimensions (all in mm)

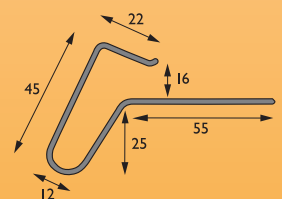
"T" STRIP



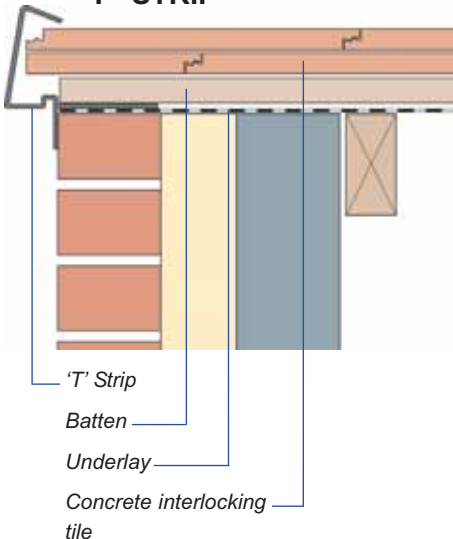
"S" STRIP



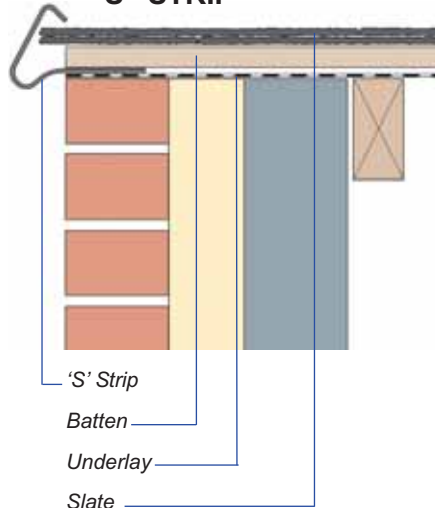
SCOT STRIP



"T" STRIP



"S" STRIP



Related Products

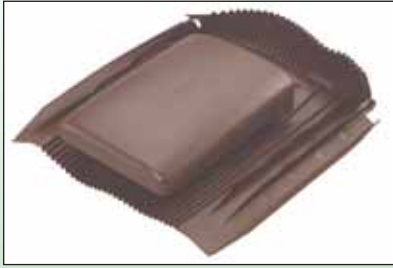
Connectors (for T Strip only) Colour / Product Codes

Black	KR980576
White	KR980577
Brown	KR980578

Ridge End Caps - HR or U/A Colour / Product Codes

	H/R	U/A
Brown	KR977236	KR977336
Black	KR977276	KR977376
White	KR977277	KR977377

Universal Vent Tile



Description

A ventilating tile which suits most popular interlocking and plain tile profiles for roofs with a pitch over 17.5°. It can be used for roof space ventilation at high or low level, or for soil ventilation or mechanical extraction when used with adaptor pack.

Material

Soft and rigid PVC.

Colour

Slate Grey base and cap
Terracotta base and cap
Brown base and cap
Antique Red base and cap

Packaging

Ten bases and caps per carton.
Ten underlay seals per carton.

Product Codes - Cartons

KG985403 - Antique Red
KG985430 - Slate Grey
KG985434 - Terracotta
KG985436 - Brown
KG979800 - 100mm Soil/Mech Adaptor
KG979900 - 125mm Soil/Mech Adaptor
KG973100 - Underlay Seal

Dimensions

455mm long x 440mm wide x 91mm deep (excluding downpipe).

Related Products

When used as high level ventilation, use in conjunction with Klobber eaves ventilation products.

NB. THE UNIVERSAL VENT TILE DOES NOT SUIT THE FOLLOWING TILE PROFILES:

Redland Delta, Redland Cambrian, Redland Saxon, Redland Richmond; Anchor Centurion, Slate; Marley Monarch; Clay Pantiles. If you require further details please contact our sales office.

Features

- Low profile design makes it unobtrusive on the roof line.
- Colour matched base suits almost all concrete & clay interlocking tiles.
- Neat cap in a choice of Terracotta, Slate Grey, Antique Red or Brown to blend with most tile colours.
- Fully wind tunnel tested
- Built-in downpipe to ensure direct ventilation path into the roof space.
- Adaptor and flexpipe available for soil ventilation or mechanical extraction.
- Prevents entry of birds and large insects.
- Complies fully with relevant Building Regulations and British Standards.

Installation

The Tile Vent is positioned in line with the tile below and a hole is cut in the underlay to accommodate downpipe. To ensure the integrity of the underlay the use of the Klobber underlay seal is strongly recommended. The rigid base is then nailed to the batten. The skirt is dressed to the tile profile. A tile is laid to the right of the base, with the PVC on back upstand positioned above and below sidelock. The cap is clipped securely to the base and tiling is continued as normal.



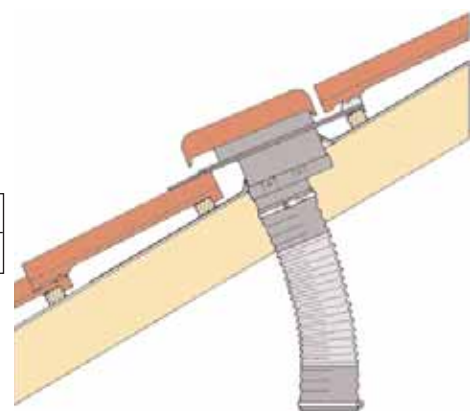
Performance

Provides 30,000mm² vent area (15,000mm² effective area);
5mm Opening @ 3m Centres
10mm Opening @ 1.5m Centres
25mm Opening @ 0.6m Centres

Airflow Resistance

	15 litres/sec	30 litres/sec	60 litres/sec
Pascals	3.5	14	56

Universal Vent Tile



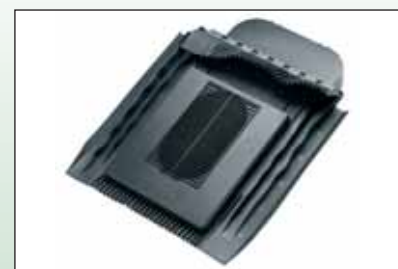
Uni-Line[®] Tile Vent

Features

- Low profile design makes it unobtrusive on the roof line.
- Colour matched grille and base suits almost all concrete interlocking tile profiles.
- Fully wind tunnel tested.
- Built-in downpipe to ensure direct ventilation path into the roof space.
- Flexpipe available for soil ventilation or mechanical extraction.
- Prevents entry of birds and large insects.
- Complies fully with relevant Building Regulations and British Standards.

Installation

The Vent Tile is positioned in line with the tile below and a hole is cut in the underlay using the template provided to accommodate the back box section. The rigid base is then nailed and clipped (with clips provided) to the batten. A tile is laid to the right of the base. The cover skirt is then dressed onto a clean dry tile surface and tiling is continued as normal.



Description

A ventilating tile which suits most concrete interlocking tile profiles for roofs with a pitch over 20°. It can be used for roof space ventilation at high or low level, or for soil ventilation or mechanical extraction when used with the Klobber Flexipipe.

Material

Soft and rigid PVC

Colour

Slate Grey
Terracotta
Brown
Antique Red

Packaging

Ten vents per carton.

Product Codes - Cartons

KG9853-0116 - Antique Red
KG9853-0429 - Slate Grey
KG9853-0152 - Terracotta
KG9853-0247 - Brown

KG979900 - 100/100mm Flexipipe - 10pc
KG973100 - Underlay Seal - 10pc

Dimensions

455mm long x 440mm wide x 33mm deep (excluding downpipe).

Performance

Provides 24,000mm² vent area
(10,000mm² effective area);

5mm Opening @ 2m Centres

10mm Opening @ 1.0m Centres

25mm Opening @ 0.4m Centres

Airflow Resistance

	15 litres/sec	30 litres/sec	60 litres/sec
Pascals	3.5	14	56

Related Products

When used as high level ventilation, use in conjunction with Klobber eaves ventilation products.

NB. THE UNI-LINE TILE VENT DOES NOT SUIT THE FOLLOWING TILE PROFILES:

Redland Delta, Redland Cambrian, Redland Saxon, Redland Richmond; Anchor Centurion, Slate; Marley Monarch; Clay Pantiles. If you require further details please contact our sales office.

Uni-Plain Tile Vent



Description

An in-line ventilating tile which suits most clay and concrete plain tiles with a pitch over 35.0°. It can be used for roof space ventilation at high or low level, or for soil ventilation or mechanical extraction when used with the adaptor pack.

Material

Polypropylene/PVC.

Colour

KG991802 - Brown Gran
 KG991803 - Antique Red.
 KG991805 - Red Gran.
 KG991818 - Hedgerow Brown.
 KG991823 - Autumn.
 KG991830 - Slate Grey.
 KG991834 - Terracotta.
 KG991836 - Brown.
 KG991878 - Rustic Red.
 KG991812 - Cotswold.

KG992800 - Adaptor & flexipipe

KG990500 - Single adaptor

Packaging

Ten units per carton.

Product Codes - Cartons

KG9918 Uni-Plain Tile Vent - 10 off.

KG9928 Soil/Mech Adaptor - 10 off.

Dimensions

300mm long x 330mm wide.

Features

- In-line design makes the vent virtually invisible in the roof line.
- Designed to fit with most manufacturers' concrete and clay plain tiles.
- Simple to install as no tile or batten cutting is necessary.
- Built-in downpipe to ensure direct ventilation path into the roof space.
- Adaptor and flexipipe available for soil ventilation or mechanical extraction.
- Prevents entry of birds and large insects.
- Suitable for high and low level ventilation.
- Complies fully with relevant Building Regulations and British Standards.

Installation

The Vent Tile is positioned in broken-bond format, above the course below, and the underlay is marked and cut to accommodate the downpipe. The vent tile is then positioned adjacent to the next tile, nailed in place and tiling continued as normal.



Performance

Provides ventilation area in excess of 6,000mm²;

5mm Opening @ 1.2m Centres

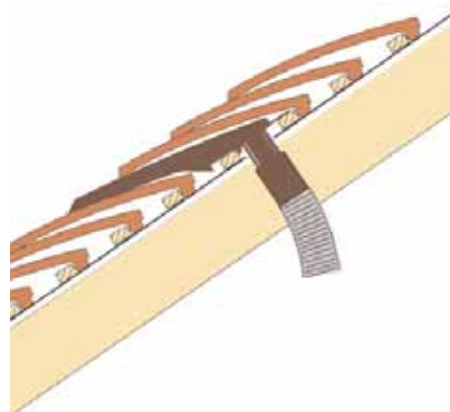
10mm Opening @ 0.6m Centres

25mm Opening @ 0.24m Centres

Airflow Resistance

	15 litres/sec	30 litres/sec	60 litres/sec
Pascals	12	48	191

Uni-Plain Tile Vent



Related Products

When using single camber tiles, we recommend that a clay compensator is used. For fixing instructions and clay compensators contact the Sales Office.

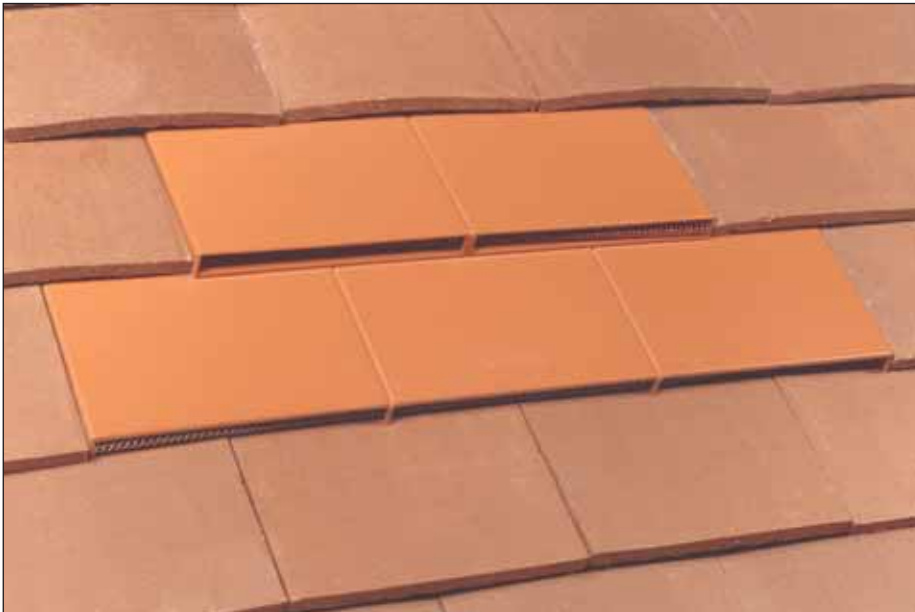
Clay Plain Tile Vent

Features

- In-line design makes the vent virtually invisible in the roof line.
- Designed to fit with most manufacturers' clay plain tiles.
- Simple to install as no tile or batten cutting is necessary.
- Optional downpipe to ensure direct ventilation path into the roof space.
- Adaptor and flexpipe available for soil ventilation or mechanical extraction.
- Prevents entry of birds and large insects.
- Suitable for high and low level ventilation.
- Complies fully with relevant Building Regulations and British Standards.

Installation

The Vent Tile is positioned in broken-bond format, above the course below, and the underlay is marked and cut open to allow a ventilation path to the roof void below. If a soil/mechanical adaptor is used, the underlay is cut open to accommodate the downpipe. The vent tile is then positioned adjacent to the next tile, nailed in place and tiling continued as normal.



Performance

Provides 9,000mm² effective area.
5mm Opening @ 1.8m Centres
10mm Opening @ 0.9m Centres
25mm Opening @ 0.36m Centres



Description

An in-line ventilating tile which suits most clay and concrete plain tiles with a pitch over 35.0°. It can be used for roof space ventilation at high or low level, or for soil ventilation or mechanical extraction when used with the adaptor pack.

Material

UV resistant polypropylene.

Colour

Terracotta.
Brown.

Packaging

Ten units per carton.

Product Codes - Cartons

KG4321-0100 - Terracotta
KG4321-0200 - Brown
KG979900 - 100/100mm Flexipipe
KG8003 - Adaptor.

Related Products

When used as high level ventilation, use in conjunction with Klobber eaves ventilation products.

'Top Vent'

Ventilating Tiles & Slates



Description

A range of high quality ventilating tiles to suit most popular interlocking roof tiles. Can be used for roof space ventilation at high or low level, or for soil ventilation or mechanical extraction when used with adaptor pack. Minimum roof pitch as per the tile manufacturers' recommendations

Material

High quality PVCu

Colour

Antique Red
Brown
Terracotta
Grey

Packaging

Ten units per carton.

Product Codes - Cartons

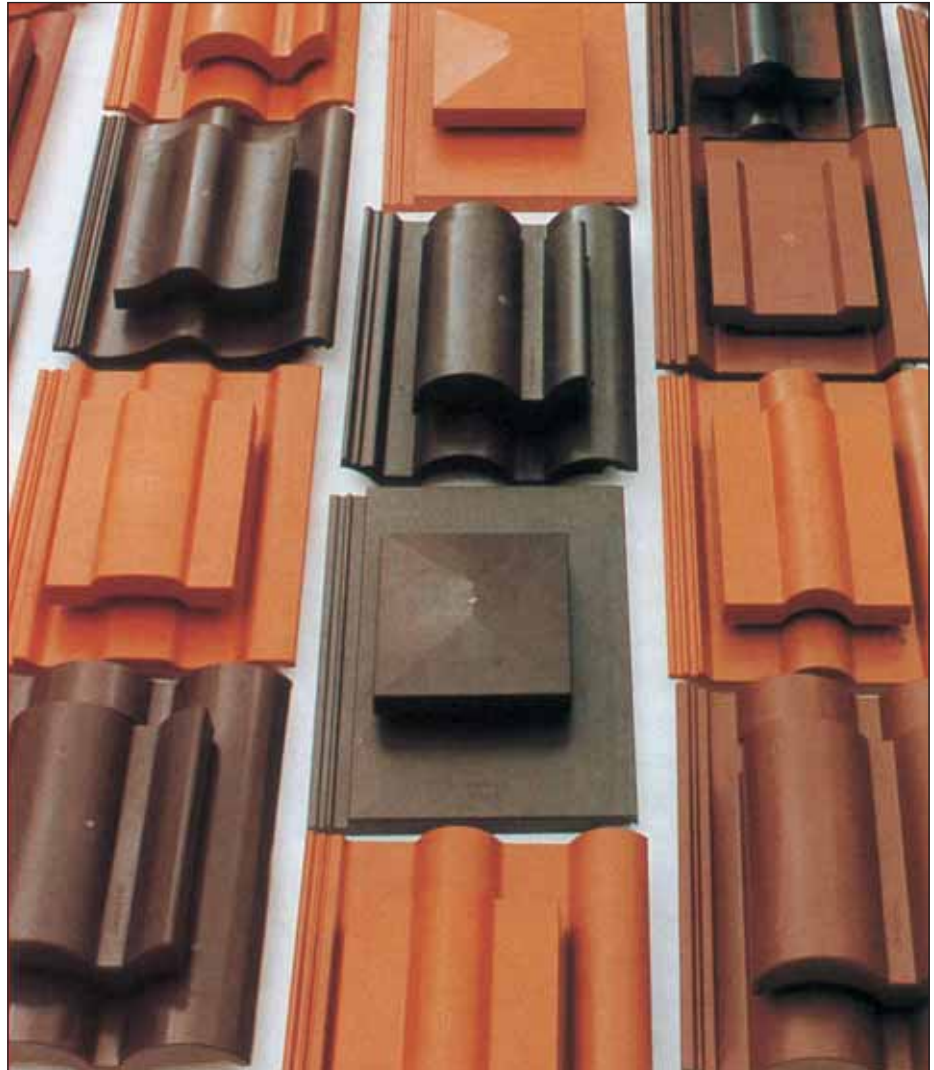
Please consult the sales office for full product range and availability

Related Products

In closed rafter situations this product should be used in conjunction with Klover eaves ventilation products; for example, Fascia Vents.

Features

- Vent caps designed to reflect the base tile profile.
- Minimum roof pitch as per the tile manufacturers' recommendations
- Suitable for high and low level ventilation.
- Comprehensive range available to match most makes of concrete interlocking tiles.
- Adaptor and flexpipe available for soil ventilation or mechanical extraction.
- Prevents entry of birds and large insects.
- Complies fully with relevant Building Regulations and British Standards.



Performance

Provides ventilation area in excess of 15,000mm²;

5mm Opening @ 3.0m Centres

10mm Opening @ 1.5m Centres

25mm Opening @ 0.6m Centres

Airflow Resistance

	15 litres/sec	30 litres/sec	60 litres/sec
Pascals	3.5	14	56



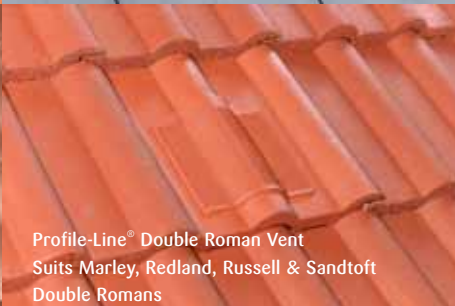
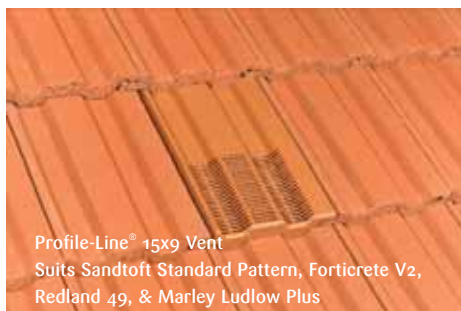
Profile-Line® Tile Vent

Features

- A new range of in-line vents available in 4 colours making them virtually invisible on the roof.
- Specially designed to fit profiles of main tile manufacturers' profiles.
- Built-in downpipe to ensure direct ventilation path into the roof space.
- Adaptor and flexipipe available for soil ventilation or mechanical extraction.
- Prevents entry of birds and large insects.
- Complies fully with relevant Building Regulations and British Standards.
- Minimum pitch 22.5°

Installation

Lay the roof tiles in the normal manner and determine the location of the tile vent, which must be inline with the tile below. Mark a 120 x 180mm wide rectangle on the underlay directly below the tile batten where the vent is to be fixed. Carry out star cut within the rectangle and fold the four tabs back and secure the top tab to the tiling batten. Place and fix tile vent in position, ensuring the back of the spigot passes through the underlay, making sure the fixing lug on the underside of the tile vent is located under the left hand interlock of the roof tile. Then proceed with the tiling in the normal manner.



Performance

Provides 10,000mm² Vent area

5mm Opening @ 2m Centres

10mm Opening @ 1m Centres

25mm Opening @ 0.4m Centres



Description

A range of ventilating tiles which can be used for roof space ventilation at high or low level, or for soil ventilation or mechanical extraction when used with the adaptor pack.

Material

UV resistant PVC

UV resistant polypropylene - 15 x 9 only

Colour

Antique Red
Terracotta
Brown
Grey

Packaging

Ten units per carton.

Product Codes - Cartons

KG9690 - 15 x 9 Vent

KG9857 - Double Roman

KG9858 - Double Pantile Vent

KG9856 - Flat Vent

KG979100 - Adaptor

KG979900 - 100/100 Flexipipe

Colour Codes

0116 Antique Red

0152 Terracotta

0247 Brown

0429 Grey

Dimensions

384 x 229mm - 15 x 9 Vent

418 x 330mm - Double Roman

418 x 332mm - Double Pantile

418 x 330mm - Flat Vent

Related Products

When used as high level ventilation, use in conjunction with Klobber eaves ventilation products.

Uni-Line® Slate Vent



Description

An innovative in-line ventilation slate to suit both 600mm x 300mm (24" x 12") and 500mm x 250mm (20" x 10") double-lap slates, both man-made and natural, for pitched roofs of 22.5° and above.

Material

UV resistant polypropylene.
High impact polystyrene (adaptor only).

Colour

Slate Grey
Dark Slate
Slate Blue

Packaging

Ten slate vents per carton.

Product Codes - Carton

KG963030 - Slate Grey.
KG963007 - Dark Slate.
KG963060 - Slate blue

KG979900 - Uni-Flexpipe only
KG973100 - Underlay Seal

Dimensions

600 x 300mm

600mm long x 380mm wide x 141mm deep
(including adaptor / downpipe).

Related Products

When used as high level ventilation, this product should be used in conjunction with Klover eaves ventilation products such as Fascia Vents.

Features

- Minimum free ventilation area 12,000mm²
- Universal application suits both 600mm x 300mm or 500mm x 250mm double-lap slates (man-made and natural)
- Designed for roofspace ventilation at low or high level
- Suitable for roof pitches of 22.5° and above
- Soil ventilation and mechanical extraction require no adaptor, just Klover's push-fit flexpipe (KR979900)
- Unique 'chevron-shield' weather bar system deflects wind-driven rain
- Unique 'drainage bar' discharges water and debris from within the vent
- Integral grill bars provide 4mm insect screen
- Minimal slate cutting
- Batten cutting only required below 225mm gauge (when used with 500mm x 250mm double-lap slates)
- Suitable for new-build or re-roofing
- The only universal in-line double-lap slate vent to be fully wind tunnel tested



Applications

- 1 Roofspace ventilation at low or high level
- 2 Mechanical extraction terminal
- 3 Soil ventilation terminal for low rise buildings

Regulations

Uni-Line Slate Vents comply with the requirements of the Building Regulations (Approved Document F2: 1995) and the relevant British Standards (BS5250: 1989 Control of Condensation in Buildings).

Performance

12,000mm² free ventilation area (6,500mm² effective area)

Spacing centres: 1.2m centres for 5,000mm²
0.6m centres for 10,000mm²

Airflow Resistance

	15 litres/sec	30 litres/sec	60 litres/sec
Pascals	24	96	384

Small Slate Vent

Features

- Available with an integral downpipe.
- Low profile design to blend with the roof line.
- For new build or re-roofing situations.
- Can be used at high or low level.
- Slate Grey cap blends with most man-made or natural slates.
- Complies fully with relevant Building Regulations and British Standards.
- Designed to avoid any build up of debris inside the vent.
- Clearly marked for cutting to various slate sizes.
- Prevents entry of birds and large insects.
- No adaptor required to convert to soil ventilation or mechanical extraction using Klobber 75/100mm flexipipe.

Installation

The Slate Vent is positioned as standard and a hole is cut in the roofing underlay directly below the vent cap position. The two lower slates are trimmed to allow the pipe to pass through between them and centre nailed in position. The Slate Vent is positioned through the hole in the slates and centre nailed. NB. If using 500 x 250mm slates cut away the side sections of the Slate Vent shown by guidelines on the underside. For headlaps in excess of 100mm cut off the front section shown by the guideline on the underside. Slating is continued as normal. Full instructions are provided with each product.



Performance

Ventilation area of 4,500mm²
5mm Opening @ 0.9m Centres
10mm Opening @ 0.45m Centres

Airflow Resistance

	15 litres/sec	30 litres/sec	60 litres/sec
Pascals	22	88	352



Description

A ventilating slate to suit 600mm x 300mm (24" x 12") and 500mm x 250mm (20" x 10") double lap slates, man-made or natural, for roofs with a pitch of 20°-70°.

The Small Slate Vent with the integral down pipe can also be used for soil ventilation or mechanical extraction when used with a 75/100mm flexipipe.

Material

Rigid PVC.

Colour

Slate Grey, matt finish.

Packaging

Ten Slate Vents per carton.

Product Codes - Cartons

KG972200 Small slate vent
KG972400 Flexipipe Only

Dimensions

600mm long x 300mm wide x 75mm deep (including downpipe).

Related Products

When used as high level ventilation, this product should be used in conjunction with Klobber eaves ventilation products such as Fascia Vents.

10K Slate Vent



Description

A ventilating slate to suit 600mm x 300mm (24" x 12") and 500mm x 250mm (20" x 10") double lap slates, man-made or natural, for roofs with a pitch of 20°-70°.

The 10K Slate Vent can also be used for soil ventilation or mechanical extraction, when used with an adaptor pack, in addition to roof space ventilation at high or low level.

Material

UV resistant polypropylene.

Colour

Slate Grey, matt finish.

Packaging

Ten Slate Vents per carton.

Product Codes - Cartons

KG968900 10K Slate Vent
KG979100 10K Adaptor only
KG979900 Flexpipe only

Dimensions

600mm long x 300mm wide x 60mm deep (excluding downpipe).

Related Products

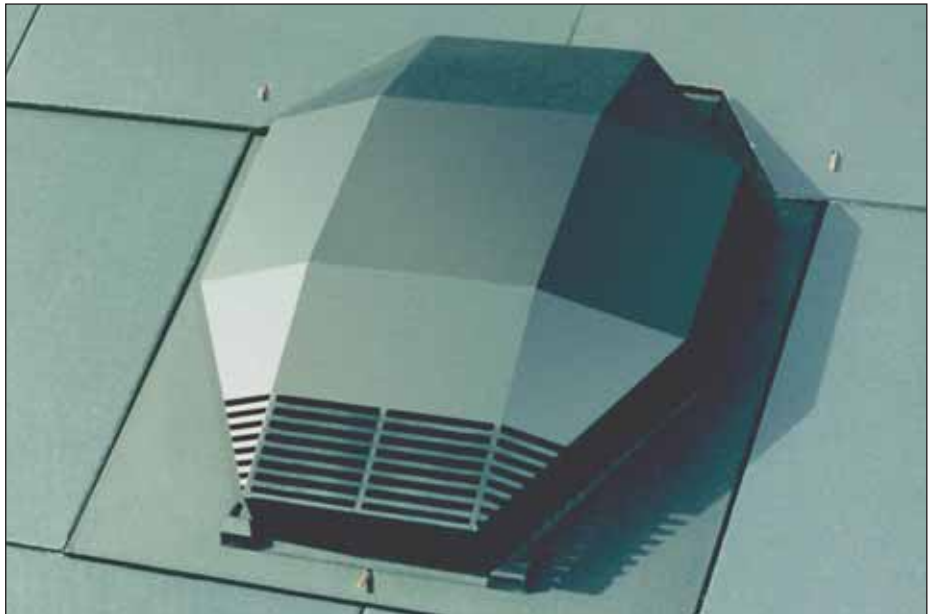
When used as high level ventilation, this product should be used in conjunction with Klover eaves ventilation products such as Fascia Vents.

Features

- Low profile design to blend in with the roof line.
- For new build or re-roofing situations.
- Can be used at high or low level.
- Slate Grey cap blends with most man-made or natural slates.
- Complies fully with relevant Building Regulations and British Standards.
- Designed to avoid any build up of debris inside the vent.
- Clearly marked for cutting to various slate sizes.
- Prevents entry of birds and large insects.
- Adaptor required to convert to soil ventilation or mechanical extraction using Klover 100/100mm flexpipe.

Installation

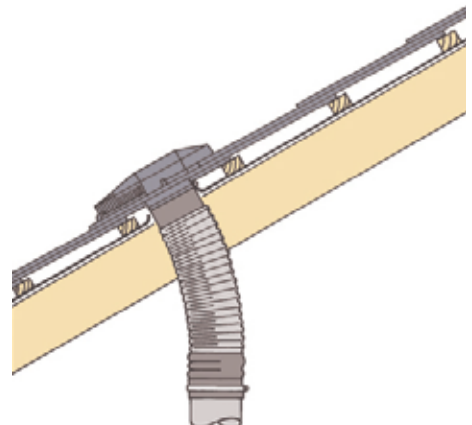
The Slate Vent is positioned as standard and a hole is cut in the roofing underlay directly below the vent cap position. The two lower slates are trimmed to allow the pipe to pass through between them and centre nailed in position. The slate vent is positioned through the hole in the slates and centre nailed. NB. if using 500mm x 250mm slates cut away the side sections of the slate vent shown by guidelines on the underside. For headlaps in excess of 100mm cut off the front section shown on the underside. Slating is continued as normal.



Performance

Ventilation area of 10,000mm²
5mm Opening @ 2m Centres
10mm Opening @ 1m Centres

10K Slate Vent



Large Slate Vent

Features

- Low profile design makes it unobtrusive on the roof line.
- Fits perfectly with adjacent slates.
- Slate Grey Cap blends in with most man-made or natural slates.
- Built-in downpipe to ensure direct ventilation path into the roof space.
- Fully wind tunnel tested.
- Adaptor and flexpipe available for soil ventilation or mechanical extraction.
- Prevents entry of birds and large insects.
- Complies fully with relevant Building Regulations.

Installation

The Slate Vent is positioned as a standard slate and a hole is cut in roofing underlay to accommodate the downpipe. To ensure the integrity of underlay the use of the Klober underlay seal is strongly recommended. The rigid base is nailed at either side of the batten. The two slates on the course immediately above the slate vent are cut to fit the profile of the vent body. NB. if using 500mm x 250mm (20" x 10") slates, the front section of the slate vent base is detached, as shown by guidelines on the underside, so that slate course is flush; the adjacent slates on the same course and the slate directly behind the slate vent itself are also cut to fit. Tail of slate vent base is clipped with slate rivet. The cap is clipped securely to the base and slating continued as normal. Full instructions are provided with each product.



Description

A ventilating slate to suit 600mm x 300mm (24" x 12") and 500mm x 250mm (20" x 10") double lap slates, man-made or natural, for roofs with a pitch over 20°. The slate vent can be used for roof space ventilation at high or low level, or for soil ventilation or mechanical extraction when used with the adaptor pack.

Material

Rigid PVC.

Colour

Slate Grey, matt finish.

Packaging

Ten bases per carton.
Twenty caps of a single colour per carton.
Ten underlay seals per carton.

Product Codes - Cartons

KG979400 Slate Vent Base
KG979630 Slate Grey Cap
KG979800 Soil/Mech Adaptor
KG973100 Underlay Seal

Dimensions

600mm long x 300mm wide x 85mm deep (excluding downpipe).

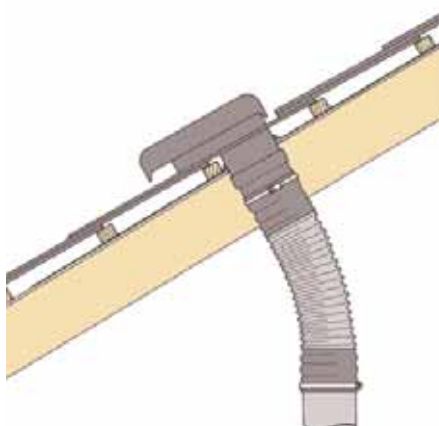
Performance

Provides 28,000mm² ventilation area (14,000mm² effective area);
5mm Opening @ 2.8m Centres
10mm Opening @ 1.4m Centres
25mm Opening @ 0.56m Centres

Airflow Resistance

	15 litres/sec	30 litres/sec	60 litres/sec
Pascals	3.5	14	56

Slate Vent



Related Products

When used as high level ventilation, this product should be used in conjunction with Klober eaves ventilation products such as Fascia Vents.

Soil Mechanical Adaptors & Uni-Flexpipes



Description

The soil/mechanical adaptor pack consists of an adaptor, for use with the Universal Vent Tile, Uni-Plain Tile Vent, Profile-Line vents, Large Slate Vent and 10k Slate Vent, together with a high quality flexible pipe with quick push fit for connecting to 100mm (4") internal ducting. The 75/100mm flexpipe is for use with the Small Slate Vent with downpipe.

Colour

Adaptors- Dark Grey
Flexpipe- Dark Grey and Light Grey

Material

Adaptors
Rigid PVC.
10k Slate Vent Adaptor
Polypropylene.

Flexpipe
Encapsulated galvanised spring steel wire helix within double ply PVC wall.

Clips
Stainless Steel.

Dimensions

Adaptor for Universal Vent Tile/Large Slate Vent
170mm long & 120mm wide x 90mm deep
105mm internal diameter.

Adaptor for Uni Plain Tile Vent only
273mm long x 44mm wide x 200mm deep.
105mm internal diameter.

Adaptor for Profile-Line vents & 10k Slate Vents
76mm long x 86mm wide x 120mm deep
105mm internal diameter.

Flexpipe- Universal Vent Tile/ Uni Plain Tile Vent/ Profile-Line vents/ Large Slate Vent/ 10k Slate Vent.
540mm overall length (unpacked)
100mm diameter.

Flexpipe -Small Slate Vent
75mm to 100mm diameter.

Packaging

Ten units per carton

Product Codes - Cartons

KG979800 Universal Vent Tile/ Large Slate Vent (Adaptor & Flexpipe)
KG992800 Uni-Plain Tile Vent (Adaptor & Flexpipe)
KG979100 Profile-Line vent / 10k Slate Vent (Adaptor only)
KG979900 100/100mm (Flexpipe only)
KG972400 75/100mm (Flexpipe only)

Underlay Seals

These are available for all vent tiles as follows: KG973100 - pack of 10 to suit Universal Vent Tile, and Slate Vent.

Features

- Quick and simple connection to internal pipework.
- Unobtrusive method of venting soil/mechanical systems.
- No tile cutting or lead flashing required.
- Everything in one convenient pack.
- Lightweight and durable.
- Pressure tested to comply with relevant British Standards.

Installation

Universal Vent Tile / Large Slate / 10K Slate Vent / Profile-Line® Vent Tile / Uni-Plain Tile Vent.

Adaptor is clipped onto the downpipe of the Universal Vent Tile, Profile-Line® Vent Tile, Slate Vent or 10K Slate Vent ideally before installation. Flexpipe is secured to adaptor with a unique push fit connector. Full fixing instructions are provided with the product.



Uni-Flexpipes - 75/100mm & 100/100mm

The 75/100mm Flexpipe is secured to the integral downpipe of the small slate vent with stainless steel clip and a second clip is used to connect it to internal pipework. The 100/100mm is secured to the adaptor or downpipe with a unique push fit connector. Full fixing instructions are supplied with each product.



Easy to use clips

The hinged clamping device allows the clip to move freely through the aperture in the open position. Clips can be quickly and easily adjusted around the ends of the flexpipe and the clamp then snapped shut to lock the strap in position. The clip can then be secured tightly using a straight tipped screwdriver to provide an airtight connection to the downpipe and internal ducting.



Features

- Very strong and robust vapour permeable underlay
- 4 layer material with grid
- BBA and IAB Approved
- Suitable for cold and warm roof applications
- No ventilation of the roof void required
- UV stable for four months
- Hydrophobic treated
- Permo® Forte SK includes a self-adhesive tape
- Allows the roof structure to breathe, yet fully waterproof
- Counterbattens only required on fully supported applications
- Limits air leakage in a sealed roof application
- Type LR underlay

Installation

Permo® Forte should be laid in accordance with our installation details set out in our Permo® Product Guide and BBA/IAB Certificates.



Features

Thickness (mm)	0.6
Water Vapour Resistance BS 3177 (MNs/g)	0.2
Sd Value EN ISO 12572 (M)	<0.02
Water Vapour Permeability BS3177 (g/m ² /day)	1034
Water Vapour Permeability EN ISO 12572 (g/m ² /day)	>1200
Weight (g/m ²)	187
Tensile Strength DIN EN 12311-1	
Longitudinal (N/5cm)	491
Transverse (N/5cm)	463
Nail Tear Strength DIN EN 12310-1	
Longitudinal (N)	437
Transverse (N)	461
Fire Rating	B2
Temperature	-40°C to + 80°C
Water Column (m)	>2.0
UV Exposure	4 Months



Description

Permo® Forte is a four-layer vapour permeable roofing underlay for use on pitched roofs.

Material

Permo® Forte is a strong laminated sheet material, with outer layers of polypropylene, an inner layer of microporous polyethylene film and re-reinforcement mesh.

Colour

Outer surface- Light grey
Inner surface- White

Roll Sizes

50 x 1.5m (75m²)
25 x 1.5m (37.5m²)
50 x 1.1m (55m²)

Roll Weights (Approx)

13kg, 10kg, 6.5Kg

Product Code

KU0044-1	50 x 1.5 m (20 rolls per pallet)
KU0044-1-26	25 x 1.5m (35 rolls per pallet)
KU0044-1-05-0401	50 x 1.1m (20 rolls per pallet)

Permo® Forte SK

KU0044-1-02	50x 1.5m (20 rolls per pallet)
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Related Products

To protect the Permo® Forte at the eaves and to prevent ponding underlay support trays are available along with a range of adhesive tapes. Eaves closers are available for counterbattened roof structures.

For specification details and further information please consult the Klover Permo® brochure.





Description

Permo[®] Light is a three-layer vapour permeable roofing underlay for use on pitched roofs.

Material

Permo[®] Light is a strong laminated sheet material, with outer layers of polypropylene, and an inner layer of microporous polyethylene film.

Colour

Outer surface- Dark grey
Inner surface- White

Roll Sizes

50 x 1.5m (75m²)
50 x 1.1m (55m²)

Roll Weights (Approx)

11 Kg
8.5 Kg

Product Code

KU0043 50m x 1.5 m
KU0043-05-0400 50m x 1.1m

Related Products

To protect the Permo[®] Light at the eaves and to prevent ponding, underlay support trays are available along with a range of adhesive tapes. Eaves closers are available for counterbattened roof structures.

For specification details and further information please consult the Klover Permo[®] brochure.

Features

- Strong and robust vapour permeable roofing underlay.
- Three-layer material.
- BBA approved for non ventilated cold and warm roofs
- UV stable for four months.
- Allows the roof structure to breathe yet fully waterproof.
- Type LR underlay

Installation

Permo[®] Light should be laid in accordance with our installation details set out in our Permo[®] Product Guide and BBA Certificate.



Features

Thickness (mm)	0.5
Water Vapour Resistance BS 3177 (MNs/g)	0.25
Sd Value EN ISO 12572 (m)	<0.02
Water Vapour Permeability BS3177 (g/m ² /day)	827
Water Vapour Permeability EN ISO 12572 (g/m ² /day)	>1200
Weight (g/m ²)	140
Tensile Strength DIN EN 12311-1	
Longitudinal (N/5cm)	264
Transverse (N/5cm)	213
Nail Tear Strength DIN EN 12310-1	
Longitudinal (N)	152
Transverse (N)	180
Fire Rating	B2
Temperature	-40°C to + 80°C
Water Column (m)	>2.0
UV Exposure	4 Months



Features

- Strong vapour permeable timber frame application underlay.
- BBA & IAB Approved.
- Waterproof.
- UV Stable for four months.
- Allows the wall structure to breathe yet fully waterproof.
- Available in four standard colours
- Bespoke colours & customer logos available on request

Installation

Permo[®] Frame should be laid in accordance with our installation details set out in our Permo[®] Product Guide and BBA Certificate.



Description

Permo[®] Frame is a single-layer vapour permeable wall underlay for use on timber framed walls and behind vertical cladding.

Material

Permo[®] Frame is a strong non woven spun bonded polypropylene sheet material.

Colours

Red

Green

Dark Blue

Anthracite

Other colours and customer logos available on request subject to minimum order.

Roll Sizes

50 x 1.5m Anthracite only (75m²)

100 x 2.7m (270m²)

Roll Weights (Approx)

7.5 Kg (75m² on a roll)

27Kg (270m² on a roll)

Product Code 2.7m

KU0059-1-4-27-10 - Red

KU0059-1-6-27-10 - Green

KU0059-1-5-27-10 - Dark Blue

KU0059-1-1-27-10 - Anthracite

Product Code 1.5m

KU0059-1-1-15-10 - Anthracite

Features

Thickness (mm)	0.3
Water Vapour Resistance BS 3177 (MNs/g)	0.09
Sd Value EN ISO 12572 (M)	<0.017
Water Vapour Permeability BS3177 (g/m ² /day)	2424
Water Vapour Permeability EN ISO 12572 (g/m ² /day)	>1200
Weight (g/m ²)	100
Tensile Strength DIN EN 12311-1	
Longitudinal (N/5cm)	238.7
Transverse (N/5cm)	145
Nail Tear Strength DIN EN 12310-1	
Longitudinal (N)	130
Transverse (N)	170
Fire Rating	B2
Temperature	-40°C to +80°C
Water Column (m)	0.23
UV Exposure	4 Months



Related Products

Klober also manufacture a range of adhesive tapes for sealing and repairing breather membranes for wall and roof structures.

For specification details and further information please consult the Klober Permo[®] Frame brochure.

Permo[®] Sec



Description

Permo[®] Sec is a vapour permeable waterproofing barrier that is installed as a separating layer between copper, zinc, aluminium and stainless steel standing seam roof finishes and the supporting deck.

Permo[®] Sec comprises of an outer layer of polypropylene mesh bonded to a vapour permeable membrane. The product is laid between the timber deck/insulation and the outer metal roof covering and can either be laid horizontally or vertically and is fixed using non-ferrous staples or flat head clout nails on the overlap.

Permo[®] Sec will prevent any condensation that occurs on the underside of the metal roof covering from re-entering the roof structure and will offer protection against any external moisture that may penetrate the outer roof covering. Provides an air space below zinc coverings to allow protective oxidation to form.

Material

5 Layer fleece foil combination of polyolefin, hydrophobic treatment and PP monofilament mesh.

Colour

Outer surface - Anthracite
Inner surface - White

Roll Sizes

25 x 1.5m (37.5m²)

Roll Weight (Approx)

21 Kg

Product Code

KU0027

Related Products

Klober also manufacture a range of adhesive tapes for sealing and repairing breather membranes for wall and roof structures.

Features

- Can be laid over rigid insulation or timber boarding.
- Suitable for roof pitches over 3°.
- Will cover any irregularities within the roof deck, that could de-form the metal roof covering.
- Provides a fully waterproof secondary barrier to moisture penetration.
- Fully vapour permeable
- With an acoustic value of 8db, Permo[®] Sec will help to reduce the transmission of external structure borne sounds e.g. rain hammer.
- Will not bond with the under side of the outer covering in hot conditions.
- Allows movement between the outer covering and the structural deck.

Installation

Permo[®] Sec should be laid in accordance with our installation details set out in our Permo[®] Sec Product Guide.



Features

Thickness (mm)	8.0 (Nominal)
Melting Point	> 200°C
Water Vapour Resistance Sd Value DIN 52615 (m)	<0.02
Water Vapour Permeability EN ISO 12572 (g/m ² /day)	>1200
Weight (g/m ²)	550
Tensile Strength DIN EN 12311-1	
Longitudinal (N/5cm)	320
Transverse (N/5cm)	290
Nail Tear Strength DIN EN 12310-1	
Longitudinal (N)	280
Transverse (N)	340
Fire Rating	B2
Temperature	-30°C to + 80°C
Water Tightness Class	W1
Water Head EN 20811	>1500mm
Acoustic Damping Value	8db
UV Exposure	4 Months

Span-Tech® Non Breathable Underlay

Features

- Very strong lightweight alternative to traditional 1F Felt.
- Three layer material.
- BRE and IAB certified.
- Not susceptible to noise when windy.
- High tensile and nail tear strength.
- Marked 100mm and 150mm lap lines.
- Absorbent inner layer as recommended in BS5250.
- Type HR underlay

Installation

Span-Tech® should be laid in accordance with our installation instructions, BRE certificate 105/03 and or IAB certificate 04/0205 and BS5534: 2003



Description

Span-Tech® is a three-layer non-breathable roofing underlay for use on ventilated pitched roofs.

Material

Non-woven Spunbonded polypropylene.

Colour

Outer surface- Blue
Inner surface- Dark grey

Roll Sizes

45 x 1.0 (45m²)
42 rolls per pallet

Roll Weight (Approx)

7.0kg

Product Code

KU9793-1

Features

Thickness (mm)	0.6
Material	3 layer polypropylene
Roll size	1m x 45m
Weight (g/m ²)	150
Water Vapour Permeability BS3177 (g/m ² /day)	0.21
Tensile Strength DIN EN 12311-1	
Longitudinal (N/5cm)	333
Transverse (N/5cm)	289
Nail Tear Strength DIN EN 12310-1	
Longitudinal (N)	225
Transverse (N)	265
Elongation at break DIN EN 12311-1	
Longitudinal	71%
Transverse	80%
Fire Rating	B2
Temperature	-40°C to + 80°C
Water tightness class prEN 13859-1	W1
UV Exposure	4 weeks



Related Products

To protect Span-Tech® at the eaves and to prevent ponding, underlay support trays are available along with a range of adhesive tapes.

Span-Tech® light Non Breathable Underlay



Description

Span-Tech® light is a three-layer non-breathable roofing underlay for use on ventilated pitched roofs

Material

Non woven spunbonded polypropylene.

Colour

Outer surface- Gry

Inner surface- Dark grey.

Roll Size

45 x 1.0 (45m²)

42 rolls per pallet

Roll Weights (Approx)

5.6kg

Product Code

KU979145 - single roll

Features

- Strong lightweight alternative to traditional 1F Felt.
- Three layer material.
- BRE certified.
- Not susceptible to noise when windy.
- High tensile and nail tear strength.
- Marked 100mm and 150mm lap lines.
- Absorbent inner layer as recommended in BS5250.
- Type HR underlay

Installation

Span-Tech® light should be laid in accordance with our installation instructions, BRE Certificate 119/06 and or BS5534: 2003



Features

Thickness (mm)	0.4
Material	3 layer polypropylene
Roll size	1m x 45m
Weight (g/m ²)	123
Water Vapour Permeability BS3177 (g/m ² /day)	0.21
Tensile Strength DIN EN 12311-1	
Longitudinal (N/5cm)	240
Transverse (N/5cm)	230
Nail Tear Strength DIN EN 12310-1	
Longitudinal (N)	125
Transverse (N)	120
Elongation at break DIN EN 12311-1	
Longitudinal	56%
Transverse	75%
Fire Rating	B2
Temperature	-40°C to + 80°C
Water tightness class prEN 13859-1	Pass
UV Exposure	4 weeks

Related Products

To protect Span-Tech® light at the eaves and to prevent ponding, underlay support trays are available along with a range of adhesive tapes.



Features

- Very strong and easy to handle.
- Suitable for walls, cold and warm roof applications.
- UV stable for four months.
- Internal air barrier / vapour control layer.

Installation

The material is fixed to the internal face of rafters or studs with the polypropylene spun fleece (yellow marked room side) facing the room interior. Klober's range of adhesive tapes may be used in conjunction with Klober Wallint® 10 as an effective means of providing an air tight system.

Not for external use.



Features

Thickness (mm)	0.3
WVP, 23°C 0/85%, Lyssy - Room to Insulation	4-5 g/m ² /day
Sd Value DIN 52615 - Room to Insulation (m)	10
Air Permeability @ 200Pa (L/m ² /s)	0
Weight (g/m ²)	120
Tensile Strength DIN EN 12311-1	
Longitudinal (N/5cm)	240
Transverse (N/5cm)	190
Nail Tear Strength DIN EN 12310-1	
Longitudinal (N)	120
Transverse (N)	130
Fire Rating DIN 4102-1	B2
Temperature	-40°C to + 80°C
UV Exposure	4 Months



Description

Klober Wallint® 10 is a multi functional internal air barrier and vapour control layer constructed from a polypropylene spun fleece. Application is to the inner face of an insulated roof or timber frame wall construction. As a vapour control layer the material will prevent large volumes of water vapour entering the construction from the interior, particularly during the buildings drying out period. Its relatively low vapour resistance also allows any damp timbers within the construction to rapidly dry out.

The strength of Klober Wallint® 10 allows it to provide an effective supporting / retaining layer to insulation boards or quilts.

Material

Composite PP-spun fleece with coating

Colour

Outer surface- Yellow
Inner surface- Yellow

Roll Size

50 x 1.5m (75m²)

Roll Weight (Approx)

9.5 Kg

Product Code

KU0055

Related Products

Klober also manufacture a range of adhesive tapes for sealing and repairing Air barrier & Vapour Control Layers in wall and roof structures.

Trapac® Snow Guard



Description

Trapac® Snow Guard and supports are the universal answer for preventing slipping snow on pitched roofs. The support brackets are suitable for installation with flat and profiled concrete interlocking tiles. The brackets are lightweight and easy to fit without the need for an additional support batten. The snow guard grids can be connected together using grid connectors.

Material

Galvanised flat steel DX51D-Z275 to EN10142.

Packaging

Support Brackets - 10 Pcs
Grid 3Metre Length - 10 Pcs
Grid Connector - 10 Pcs

Product Code

KS9220 Snow Guard Support Brackets
KS9210 Snow Guard Grid 3m Length
KS9215 Snow Guard Grid Connector

Colour: Black (Brown & Red by request).



Description

Trapac® Single Steps are a universal adjustable galvanised metal step that provides easy access on pitched roofs. Suitable for clay and concrete interlocking roof tiles with a batten depth between 24mm – 40mm.

The complete thickness of the tile and batten must not exceed 57mm. The steps are available in two widths 18cm and 28cm and are lightweight and easy to install on roof pitches between 14° & 56°.

Material

Galvanised flat steel DX51D-Z275 to EN10142.

Packaging

Steps 10pcs per carton

Product Code

KS9100 Universal Single Step 18cm
KS9110 Universal Single Step 28cm
Colour: Black. Brown and Red by request

Features

- Quick and easy to install
- Suitable for new build and refurbishment projects
- Suits clay and concrete interlocking tiles
- Galvanised and powder coated
- Prevents slipping tiles from falling

Installation

Determine the location of the Snow Guard Support Brackets usually within the first or second course of tiles up from the eaves. Lay tiles to the course the brackets are being fixed, hook Support Brackets over the tile and tiling batten and pull down over the batten and the tile, fix into tile batten with 50mm ring shank nail. If the brackets are being installed within a profile tile, the brackets must be installed within the pan of the tile. The Support Brackets are fixed at 600mm centres.

Suitable for clay and concrete interlocking tiles with batten depth between 24 & 40mm. The complete thickness of the tile and the tile batten must not exceed 57mm.



Trapac® Single Step

Features

- Quick and easy to install
- Suitable for new build and refurbishment projects
- Galvanised and powder coated
- Universal application suits clay and concrete interlocking tiles
- Adjustable to suit roof pitch

Installation

Determine location of steps which must be fitted on undamaged tiles with both nibs in good condition. The load bearing battens where the step hooks over must also not be defective. If the brackets are not fully resting on the lower tiling batten, an additional batten must be fixed. Hook step over the batten and the tile within the trough/pan of the tile making sure that the underside of the hook is up against the top of the tile. Once the step has been secured to the batten, align and level the tread according to the pitch of the roof.



Flavent® Flat Roofing Accessories

Features

The complete range of flat roofing breather vents soil/mechanical extract terminals and roof outlets to suit cold or warm roof applications.

All Klover fittings are made of High Impact PVC, and many feature special patented seals which are more than a match for rain, snow and ice.

- Very strong durable range of flat roof vents and outlets
- UV stable
- Comprehensive range to suit cold and warm roof applications
- 70mm, 100mm and 125mm diameter vents and outlets available
- Suitable for bituminous, UPVC and single ply roof systems



Description

A range of flat roofing breather vents soil/mechanical extract terminals and roof outlets to suit cold or warm roof applications. Manufactured from high impact PVC which is UV stable and very durable.

Material

High impact PVC

Products

Please contact the Sales or Technical department for the full product range and availability

Sun

Strong, prolonged sunshine leaves Klover products unaffected. The particularly resilient UV resistant High Impact PVC is stable and fade-free, and does not crack or deform. The joints are also unaffected by extremes of heat.

Water

The main problem for all flat-roofs is water. Add to this the need for protected vent pipes for kitchen, bathroom and WC, water-proof but not restricting the air-flow. The storm-proof rain cap guarantees air-flow.

Frost

Hard frost can be the ultimate test for material and seals. The Klover flat-roof fittings remain flexible because of their durability, and are unaffected by extreme temperatures or physical punishment.

A full list and technical details of all the products in the range are available upon request

Adhesive Tapes



Product Codes

- Tacto® - 20mm x 50m - KU 0111
- Flecto® - 60mm x 25m - KU 0112-01
- Butylon® - 20mm x 25m - KU0103
- Butylon® - 50mm x 25m - KU0104
- Permo® Pro HD - 80mm x 30m - KU0130-1

Tacto® Tape

Tacto® is a double-sided tape suitable for sealing vapour permeable underlays to smooth and irregular surfaces providing a wind tight underlay.



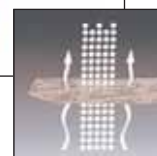
Flecto® Tape

Flecto® is a single sided tape suitable for the internal repair and sealing of underlays and vapour control layers.



Permo® Pro HD Tape

Permo® Pro HD tape is a single sided, vapour permeable tape suitable for externally sealing and repairing roofing underlays



Butylon® Tape

Butylon® is a double-sided tape that adheres underlays and VCL's to smooth and rough surfaces such as brickwork and metal etc. Butylon® can be used below tile or counterbattens to seal completely all batten nail penetrations through a roofing underlay.

Description

The simplest remedy for dark lofts and barn roofs: Klobber daylight tiles create a bright friendly atmosphere.

Material

High quality acrylic

Packaging

Ten units per carton.

Product Codes

- KL0001 - Redland, Marley, Sandtoft Double Roman
- KL0009 - Redland Grovebury/Landmark, Marley Mendip, Sandtoft Double Pan Tile
- KL0016 - Redland Regent
- KL0082 - Redland Mini Stonewold, Marley Modern, Sandtoft Calderdale,
- KL0086 - Redland 49, Marley Ludlow Plus



Acrylic Tiles



Cost-free illumination

The simplest remedy for dark lofts and barn roofs: Klobber daylight tiles create a bright friendly atmosphere and enable exciting lighting effects to be achieved. There is no end to the possibilities. They stand up to the roughest treatment, are unaffected by sunlight and are absolutely wind and waterproof.

The light efficiency is almost 100% and

there is no green or blue cast. The carefully moulded tile form guarantees a perfect fit between the existing tiles.

In spite of their strength, Klobber Prismax® daylight tiles are lightweight making them easy to handle and fit.

Primax[®] 4 Tile Skylight

Features

- Easy to install.
- Universal application, suitable for most roof tile profiles (without need for cutting tiles). Can also be used with concrete and clay tiles.
- Provides daylight into the loft for all cold pitched roofs.
- Can be used for trickle ventilation.
- Window opens outwards, either top hung, or to the left or right.
- Two positions for ventilation are available to adapt to the requirement of the loft.
- Polycarbonate dome is made to withstand impact and thereby resist break-ins.
- Fully opened can be used to gain access to the roof for maintenance.



Description

The Primax 4 Tile Skylight is an economical solution for pitched roofs from 16° to 55°. The skylight offers a permanent window to the roof space allowing maximum light into the room. It can be opened for trickle ventilation or fully opened to allow access to the roof for maintenance.

Colour

Terracotta
Dark Brown
Anthracite

Material

Frame - Plastic.
Dome - Reinforced Polycarbonate.
Apron - PVC.

Dimensions

570mm x 525mm.

Packaging

1 Skylight per pack.
18 Skylights per pallet.

Product Codes - Individual

KT401-0100 - Terracotta
KT401-0200 - Brown
KT401-0400 - Anthracite

Installation

Full easy-to-follow fixing instructions are included with each skylight.

TECHNICAL SERVICES AND DESIGN SUPPORT

Recommendations as to methods, use of materials and construction details are based on the accumulated experience and knowledge of KLOBER and are given in good faith as a general guide and a service to designers, contractors and manufacturers.

KLOBER is happy to provide technical advice on how best to incorporate its product ranges into specific building types, or particular forms and techniques of construction, whether for refurbishment or new-build projects. The company offers the following services:

- telephone help-lines: 01509 500671/675
- computerised U-value calculations and condensation risk analysis
- site visits by technical staff
- copies of relevant test reports and certification
- product samples
- technical literature
- help and advice on roof detailing and on meeting the requirements of UK Building Regulations and Building Standards
- CPD Seminars

Guarantee

All products supplied by Klober Ltd. are covered by a 10 year guarantee against manufacturing defect. Products are not covered for colour stability, poor workmanship or incorrect installation.

All products should be installed as per our literature/fixing instructions and or guidelines set out in BS5534, BS5250 and our BBA/BRE certificates.

Prices and conditions of sale

A price list for KLOBER products is available on request. All products are sold subject to the KLOBER conditions of sale, copies of which are available on request. The KLOBER policy of continuing development may mean that the products supplied could differ slightly from those described in this brochure.

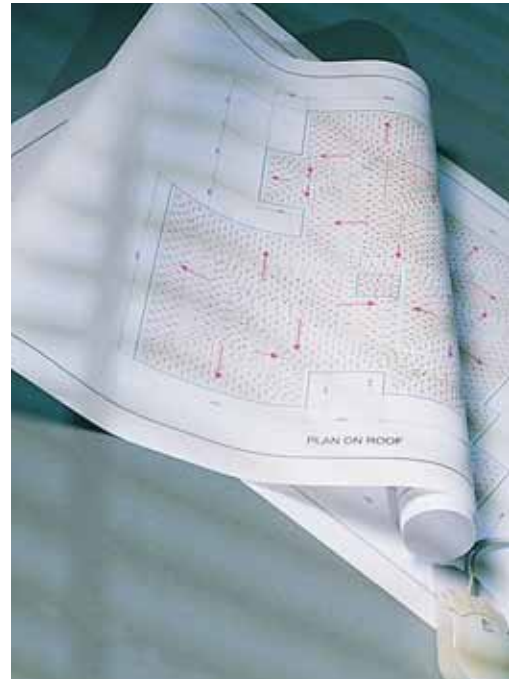
Ordering, supply and delivery

PERMO® is available on a short lead time: it may be ordered by post, telephone or fax through the KLOBER network of merchants. Enquiries should be addressed to:

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Ingleberry Road
Shepshed
Leicestershire
LE12 9DE

Help-lines: +44 (0) 1509 500671/675
General Enquiries: +44 (0) 1509 500660
Fax: +44 (0) 1509 600061
Technical Svs. Fax: +44 (0) 1509 508295

E-mail: support@klober.co.uk
technical@klober.co.uk
literature@klober.co.uk
Website: www.klober.co.uk



References

Technical literature and applications and design guidance are available on request for all of the following product ranges:

- Eaves ventilation
- Rafter trays
- Tile vents
- Slate vents
- Top vent-ventilation tiles
- Uni-finials
- Non-breathable underlays
- Uni dry ridge and verge system
- Uni-line continuous dry verge
- Roll-Fix Kit ridge and hip ventilation
- Flavent flat roof fittings
- Adhesive building tapes
- Prismax skylight and acrylic roof tiles
- Trapac safety system
- Roofing accessories

NOTE: KLOBER is involved in a continuing programme of product research and development; the company reserves the right to amend and improve product ranges and specifications.

For a Condensation Risk Analysis this page should be photocopied, completed and faxed to the Technical Services department on:

01509 508295

BS 5250 condensation risk calculations

1 Contact information

Name Date:

Company

Address

.....

..... Postcode

Telephone Fax

2 Project Name/Reference

.....

3 Internal conditions – building use *please tick appropriate box – one only*

Domestic – Residential Public/Community Building Offices – Commercial

Factory/Warehouse – Heated School/Educational Facility Swimming Pool

Sports Facility Others (please specify)

4 Construction element *please tick appropriate box – one only*

Insulation at ceiling level (..... roof pitch) Wall – metal cladding

Insulation between rafters Insulation between and below rafters Roof – metal cladding

Insulation over rafters Insulation over and between rafters Standing seam roof

Insulation over rafters and between counter battens

Other (please specify)

Rafters/joists mm x mm at mm centres

5 Construction *please enter construction layers starting from the outside*

e	1. Tile/slate	1
l	2. 25x38 tiling battens	2
p	3. Permo Forte	3
E	4. Non-ventilated airspace	4
a	5. 170mm glass wool over joists	5
x	6. 100mm glass wool between joists	6
W	7. Klover Wallint 10	7
	8. 12.5mm plasterboard	8
	9. None	9

Calculations are carried out in accordance with BS 5250: 2002. Klover Limited

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KLOBER

Professional roofing accessories

For all sales enquiries and orders, call or fax our Dedicated Customer Service Hotline and you will be automatically connected to the internal sales representative dealing with your area.

Sales Telephone
0800 7833216

Sales Facsimile
01509 505535



KLOBER