

MARCH 2015



THE PROFESSIONALS

TRUST KLOBER

ROOFING
PRODUCTS &
ACCESSORIES

POCKET GUIDE



WWW.KLOBER.CO.UK

KLOBER



THE PROFESSIONALS TRUST KLOBER

FOR ROOFING PRODUCTS THAT DELIVER
EXCEPTIONAL PERFORMANCE, AND PEOPLE WHO
DELIVER OUTSTANDING CUSTOMER SERVICE



Klobber is the industry leader continually innovating, developing new products and system solutions. Our technical support and customer service is unrivalled, so whatever you are looking for in roofing products and accessories – reliability, innovation and value for money, you can trust Klobber to deliver.

Certification

All of Klobber's products conform to the relevant Building Regulations and British Standards and, where appropriate, are BBA, BRE, IAB and CE certified.

Guarantee

All products supplied by Klobber 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/IAB certificates.

FIND OUT MORE

T: 0800 783 3216 | INFO@KLOBBER.CO.UK

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KLOBBER



PITCH ROOF



FLAT ROOF



SOLAR LINE

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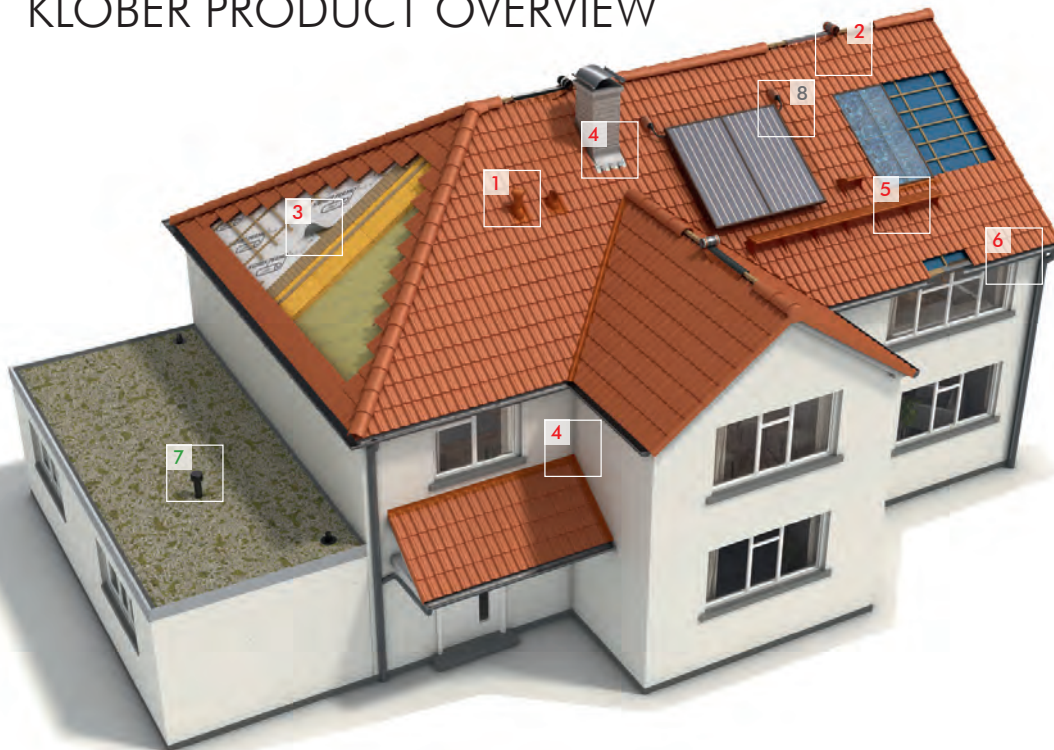
Easy-Form® Tile Guard Flashing

Easy-Form® Solar Panel Apron Flashing

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KLOBER PRODUCT OVERVIEW



Technical support

All products are rigorously tested – as you would 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 and Irish weather. Products fully comply with British Standards and all other relevant performance requirements. We offer technical advice and design support on how best to incorporate Klobber products into specific building types or particular forms and techniques of construction, whether for refurbishment or new-build projects.

The Klobber technical service includes:

- Telephone helpline +44 (0)1332 813 050
- Computerised U-value calculations and condensation risk analysis
- Site visits by technical staff
- Product samples (depending on availability and product)
- Copies of relevant test reports and certification
- Technical literature
- CPD approved seminars
- Help and advice on roof detailing and on meeting the requirements of Building Regulations
- In-house and on-site training

Certifications



Certificate no: 11118
ISO 9001
ISO 14001
OHSAS 18001



Recommendations as to methods, use of materials and construction details are based on the accumulated experience and knowledge of Klobber and are given in good faith as a general guide and service to designers, contractors, merchants, roofers and manufacturers. All products are sold subject to Klobber's 'Conditions of Sale', copies of which are available on request.

Klobber's policy of continuing development may mean that the products supplied could differ slightly from those described in this Roofing Ventilation & Products Pocket Guide.

1 Pitched Roof Vents

- Venduct® Soil & Ventilations Systems

2 Roof Ventilation

- Ridge & Hip Product System
- Eaves Product System

3 Underlays and Vapour Barriers

- Permo® vapour permeable membranes & barriers
- Sepa® non vapour permeable membrane
- Wallint® vapour barriers
- Adhesive Tapes & Sealants

4 Roof Safety

- Trapac® Roof Access & Maintenance
- Trapac® Snow Guard

5 Other Roofing Accessories

- Easy-Form® Universal Flashing
- Verge Product System
- Valleys Product System
- Bird Deterrent

6 Flat Roof

- Flavent® Vents for Roof & House Ventilation
- Flavent® Rainwater Outlets for Roof, Parapet & Balcony
- Flavent® Outlets for Power Cables

7 SOLAR-LINE

- Venduct® Solar Cable Outlet Kit
- Venduct® Solar Thermal Outlet Kit
- Venduct® Solar Panel Support
- Easy-Form® Tile Guard Flashing
- Easy-Form® Solar Panel Apron Flashing

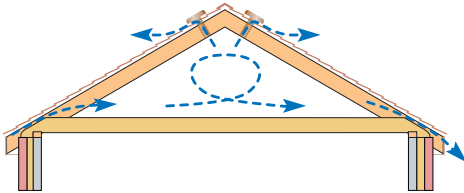
MAKING THE RIGHT CHOICE OF VENTILATION

The diagrams below are designed to provide an at-a-glance guide to ventilation requirements for the most common roof types and the Klobber products that can be used for them. In many cases, there is a choice of suitable products.

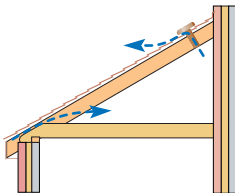
Product selection will depend on several factors – such as whether it is new build, re-roofing or refurbishment work and whether ventilation is preferred through the soffit or over the fascia. The ventilation requirements are the minimum levels set out in the Building Regulations and BS 5250. There may well be instances where additional ventilation is thought advisable.

Unusual roof types will demand special consideration.

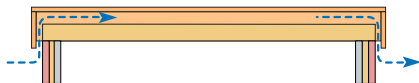
A Standard duo-pitch roof 15° pitch and above
10mm continuous opening at eaves, with additional high level ventilation of 5mm particularly for pitches over 35° and spans greater than 10m.



B Lean-to or mono-pitch roof 15° pitch and above
10mm continuous opening at eaves, with additional high level ventilation of 5mm. Below 15°, the opening at the eaves should be increased to 25mm.



C Flat roof – cold deck or pitched roof less than 15°
25mm continuous opening on opposite sides.



THE KEY TO PRODUCT CHOICE

Each of the roof types below are identified by a simple key -

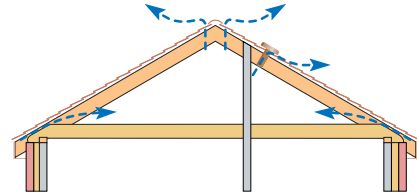
A. B. C. D. E.

Using this method, it is easy to select which products are most suited to a particular type of roof construction and which are the related products.

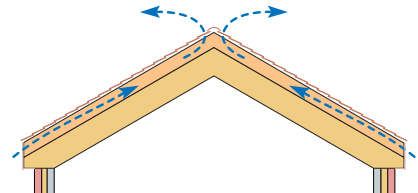
Further information or technical guidance is available by contacting Technical Support on **+44 (0)1332 813 050**.

On non-ventilated roofs using Permo® air, forte or light underlays, consideration should be given to the guidelines stated in the relevant BBA and IAB certificates or the Klobber Permo® Guide.

D Duo-pitch roof 15° pitch and above, with division walls
10mm continuous opening at eaves, with 5mm continuous opening immediately below and 10mm continuous opening immediately above each division wall.



E Duo-pitch roof, with ceiling and insulation inclined
25mm continuous opening at eaves, with additional high level ventilation of 5mm either side or 5mm at the ridge. 50mm gap between insulation and underlay.



BS 5534 and KLOBER

The updated BS 5534 'Code of Practice for slating and tiling' has generally been accepted as the industry's most important of the last 20 years. Enquiries to Klover so far have certainly reflected a high level of interest, in complete contrast to what we would normally expect with a new British Standard.

We believe there are two reasons for this, the main one being that it affects fixing principles as a whole and secondly it has incorporated new wind load information contained in new Euro codes and the new regulations mean that a greater level of fixing is necessary. The NFRC has been actively lobbying members to improve awareness of what lies ahead and has been encouraging a small core of key manufacturers, including Klover, to provide training free of charge ahead of the implementation date on 1st of March.

MORTAR FIXING

The first key element of the Standard was prompted by the fact that around two thirds of roofing claims to the NHBC under its Buildmark Warranty relate to mortar fixing. Mortar offers little tensile strength and changes in construction technique have exposed its inflexibility. Failures had shown little sign of reducing in number, so much so that the move toward dry fixing had already been formally supported by the NHBC. Though mortar will of course continue to be used, all ridge and hip tiles must now be mechanically fixed.

The Standard also places particular emphasis on use of the correct material ratios when mixing mortar as site complaints had highlighted poor quality on a regular basis. There are many factors which can affect mortar quality, among them water purity, weather, use of admixtures and cleanliness of the tile surface. The NHBC's input on failure rates also prompted withdrawal of the mortar test from the Standard and the requirement for mechanical fixing of all ridge and hip tiles.



Klover's dry fix products provide a simple solution to overcome all problems associated with mortar, and are fully compliant with the new standards.

DRY FIXING

Dry fixing, which has been in common use in Scotland for a number of years and is very much the quicker, more reliable option is considered to be best practice. It is important to follow manufacturer specifications for dry fixing of ridges and hips, particular in relation to such features as the ridge batten. Klover dry fix kits contain all the necessary mechanical fixings needed to comply with the Standard while products such as Roll-Fix, designed for universal use, can also provide ventilation at the ridge. As an alternative, the Klover Uni-Dry Ventilating Ridge provides neat, secure, maintenance-free, all-weather mechanical fixing for half-round and angled ridges as well as high-level ventilation. Fixing screws are not supplied by all manufacturers so care should be taken to ensure the correct type and length of screw is used, ensuring too that compatible clamping plates are supplied.

VERGES

Dry fix systems vary between manufacturers so it is important to ensure that the specification for each is followed. Verges must have two fixings while, when fixing natural slates, if using a hook fixing system verge slates should be hooked and nailed. With fibre-cement slates, verge slates should be nailed in addition to a hook or rivet (according to the manufacturer's recommendations). For all verges, where the nearest batten fixing is more than 300mm, an additional fixing must be provided.

SINGLE LAP TILE FIXING

One element of the Standard which will impact heavily on contractors is the need to fix every single lap interlocking tile with either a clip or nail. Changes in wind loading calculations were prompted by improved knowledge of weather patterns throughout Europe and the move is considered by many to be long overdue. While there has been some reduction in failures already in relation to new build roofing problems, as yet there has been no reduction for renovated roofs. This is mainly a consequence of contractors not heeding manufacturer recommendations - perhaps not surprising given the lower level of attention paid to such work by Local Authority Building Control Officers.

Whether for new build or refurbishment, it is important to nail or clip tile and slate vents which are, after all, lighter than the roof coverings they are fixed with. All perimeter courses should also be mechanically fixed.

Where the new BS 5534 wind zone map and / or a manufacturer specification indicates a building will be subject to high winds, nailing alone may not be sufficient. The new calculation method should always relate to individual buildings to determine the level of fixing required: nailing, clipping or both.

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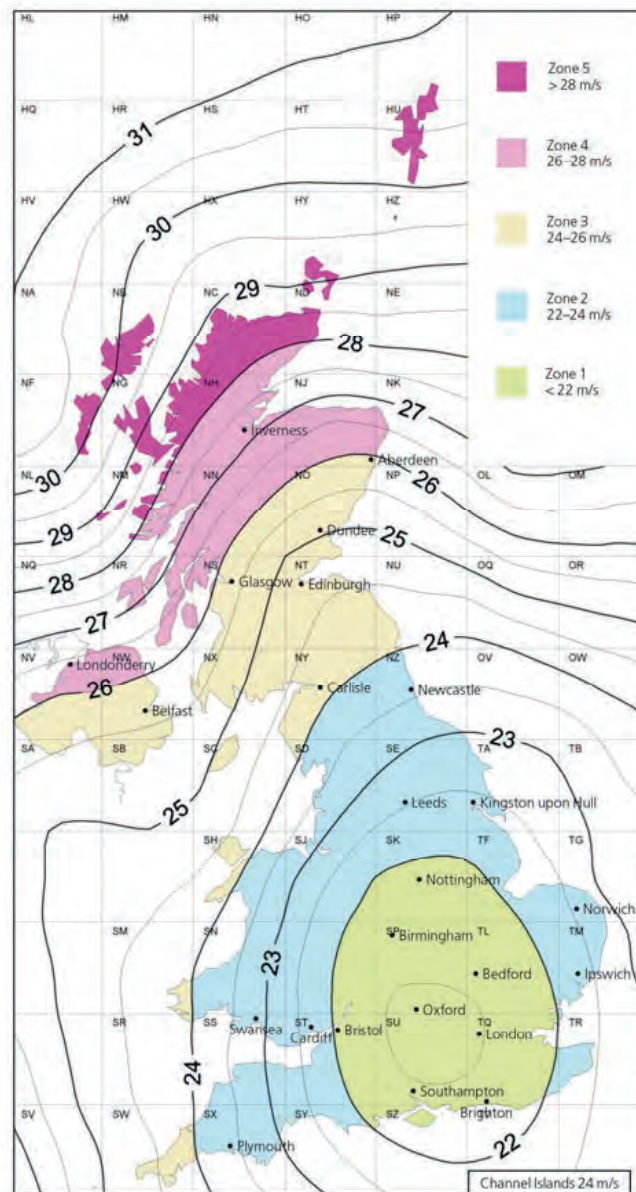
UNDERLAYS

The Standard carries considerable implications for manufacturers as well as contractors, particularly in relation to underlays. Following an increasing number of problems with lightweight membranes 'ballooning', a new wind speed map of the UK has been produced and manufacturers will be required to provide information on wrappers to show the zonal limit for each product. A test for upward deflection has also been established, so labelling will at last provide a measure of comparison for the dozens of products available. Many have the support of BBA certification but this has, in many senses, caused confusion as it has masked variations in product quality. The new Standard should therefore prevent inadequate underlays being sold purely on price against materials which are genuinely fit for purpose.

Among air-open underlays, BRE tests have confirmed that Permo® air, for example, exceeds the minimum wind uplift resistance of 1600 Pa and can be used at a 345mm batten gauge in all zones (used with Permo TR tape for Zones 4-5 instead of the additional fly batten which is otherwise required). It can be used up to Zone 3, which extends as far north as Aberdeen, without it.

Underlay laps must be secured by a batten or by proprietary means such as tapes/sealants. If the latter, evidence will be needed from the manufacturer that this has been tested for wind uplift.

THE NEW UK WIND ZONE MAP IN BS 5534



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To obtain a copy of the table guidelines for Klober Permo underlays, just contact us t: 0800 783 3216 or e: info@klober.co.uk



Klober provide have a range of compliant underlays including Permo® forte SK that can be used everywhere in the UK without restriction.

BATTENS

BS 5534 requirements for battens have not changed though roofing battens should be clearly and indelibly marked with the name of supplier, timber type and origin and size and stamped to confirm compliance with BS 5534. Accompanying documentation should also contain details of the type of preservative and method of treatment used on the timber. The simplest way to ensure compliance is to use a supplier with UKAS quality assurance certification.

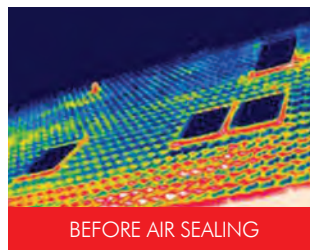
Importantly, 24 roofing product manufacturers are working alongside the NFRC to provide free of charge training for contractors on changes brought about by the Standard. Klober is one of six doing so in the Midlands and though three courses are already fully subscribed more are planned within the six month transition window. Courses are available to any contractor but free to NFRC members who will also receive a copy of the new Standard.

Until 1st of March 2015, contractors will be able to request a specification to either the old or new standard so time has been given to provide adequate transition and quote for work based on the new requirements. For any roof not started by 1st of March, however, the new requirements will apply without exception.

MAXIMISING AIRTIGHTNESS IN ROOF CONSTRUCTION BY TAKING CONTROL OF AIR LEAKAGE

AS THERMAL INSULATION STANDARDS HAVE INCREASED, HEAT LOSS THROUGH AIR LEAKAGE HAS TAKEN ON A MUCH GREATER SIGNIFICANCE. IF NOT ADDRESSED, IT CAN CONSTITUTE MORE THAN 50% OF THE HEAT LOSS THROUGH THE BUILDING ENVELOPE. HOWEVER, IN ELIMINATING THESE UNWANTED AIR LEAKAGE PATHS, ATTENTION NEEDS TO BE PAID TO ACHIEVING SUFFICIENT VENTILATION FOR HEALTH.

WITH THIS IN MIND, THE INDUSTRY HAS DEVELOPED AN APPROPRIATE SLOGAN: 'BUILD TIGHT, VENTILATE RIGHT'.



BEFORE AIR SEALING



AFTER AIR SEALING

AIRTIGHTNESS STRATEGY

The airtightness strategy should be to introduce air barriers into the construction that are well sealed at the junctions between elements, are sufficiently robust to withstand the air pressures likely to be encountered, as well as accidental damage, and have appropriate vapour resistance characteristics according to their location within the construction. Taking into account the trade sequence, it is also important to simplify detailing in order to ensure consistent buildability.

KLOBER'S AIRTIGHTNESS SOLUTION

Klober provide a variety of solutions to help to maximise airtightness. We have developed a range of products, technical literature:

Maximising airtightness in roof construction and **SAP Analysis** and a CPD: **Control of Air leakage (Part L & BS 5250)** supported by our in-house technical team to ensure that you have everything you need to help you tackle the problem.

Our range of products that work together to provide a complete airtightness solution. The package includes underlays, vapour control layers, air barriers and compatible sealing products. This ensures that any joints, penetrations and gaps within the membranes and connections with the air barriers in other elements of the construction are sealed correctly.



Profile-Line® Tile Vents

Area of application

- For roofs with a pitch over 17.5°
- **Limarech Vent:** suits Marley Ludlow Major, Redland Renown, Russell Cheviot and Sandtoft Lindum profiles
- **Double Pantile Vent:** suits Marley Mendip, Redland Grovebury, Russell Pennine and Sandtoft Double Pantile profiles
- **Double Roman Vent:** suits Marley, Redland, Russell and Sandtoft Double Roman profiles

Product features

- In-line design makes it unobtrusive on the roof line
- Can be used at high or low levels and for soil ventilation or mechanical extraction when used with a Klobber Flexipipe
- Built-in downpipe ensures ventilation path into roof space
- Adaptor and Flexipipe available for soil ventilation or mechanical extraction
- Complies fully with the relevant Building Regulations and British Standards

Product Code / Colour

Limarech Vent:	KG9859
Double Pantile Vent:	KG9858
Double Roman Vent:	KG9857
Antique Red	-0116
Brown	-0247
Slate Grey	-0429
Terracotta	-0152

Related Products

Adaptor & Flexipipe	KG979200
Flexipipe 100/100mm	KG979900
Soil/Mechanical Adaptor	KG979100

Dimensions

418mm long x 332mm wide

Packaging

10 pcs per carton

PERFORMANCE / TECHNICAL DATA

Provides 10,000mm² effective area

5mm opening at 2m centres	25mm opening at 0.4m centres		
10mm opening at 1m centres			
Airflow resistance	15 litres/sec	30 litres/sec	60 litres/sec
Limarech Vent	7 Pascals	29 Pascals	115 Pascals
Double Pantile Vent	4 Pascals	16 Pascals	64 Pascals
Double Roman Vent	7 Pascals	29 Pascals	115 Pascals

Profile-Line® Tile Vents

Area of application

- For roofs with a pitch over 20°
- **Single Pantile Vent:** suits Sandtoft Shire Pantile, Redland Norfolk Pantile, Marley Anglia and Forticrete Centurion interlocking tiles
- **15x9 Vent:** suits Redland 49, Marley Ludlow Plus, Sandtoft Standard Pattern, and Forticrete V2 interlocking tiles
- **Flat Vent:** suits Marley Modern, Redland Mini Stonewold, Russell Grampian and Sandtoft Calderdale profiles

Product features

- In-line design makes it unobtrusive on the roof line
- Can be use at high or low levels and for soil ventilation or mechanical extraction when used with a Klobber Flexipipe
- Built-in downpipe ensures ventilation path into roof space
- Adaptor and Flexipipe available for soil ventilation or mechanical extraction
- Complies fully with the relevant Building Regulations and British Standards

Product Code / Colour

Single Pantile Vent:	KG9860
15x9 Vent:	KG9690
Flat Vent:	KG9856
Antique Red	-0116
Brown	-0247
Slate Grey	-0429
Terracotta	-0152
Black	-0450 (only Flat Vent)

Related Products

Adaptor & Flexipipe	KG979200
Flexipipe 100/100mm	KG979900
Soil/Mechanical Adaptor	KG979100

Dimensions / Packaging

384mm long x 229mm wide (Single Pantile/15x9 Vent) 10 pcs per carton
418mm long x 330mm wide (Flat Vent) 10 pcs per carton

PERFORMANCE / TECHNICAL DATA

Provides 10,000mm² effective area

5mm opening at 2m centres	25mm opening at 0.4m centres		
10mm opening at 1m centres			
Airflow resistance	15 litres/sec	30 litres/sec	60 litres/sec
Single Pantile Vent	12 Pascals	48 Pascals	192 Pascals
15 x 9 Vent	12 Pascals	48 Pascals	192 Pascals
Flat Vent	7 Pascals	29 Pascals	115 Pascals



Profile-Line® Twin Plain Tile Vent

is a neat, cleverly designed in-line vent which is virtually invisible from the ground.

Area of application

- For roofs with a pitch over 22.5°
- Suits Redland Duo Plain, Forticrete Gemini and Marley Ashmore interlocking tiles
- High and low level ventilation

Product features

- In-line design makes it unobtrusive on the roof line
- Can be use at high or low levels and for soil ventilation or mechanical extraction when used with a Klobber Flexipipe
- Built-in downpipe ensures ventilation path into roof space
- Adaptor and Flexipipe available for soil ventilation or mechanical extraction
- Complies fully with the relevant Building Regulations and British Standards

Product Code / Colour

KG9861	
Antique Red	-0116
Brown	-0247
Slate Grey	-0429
Terracotta	-0152

Related Products

Adaptor & Flexipipe	KG979200
Flexipipe 100/100mm	KG979900
Soil/Mechanical	KG979100
Adaptor	

Dimensions

273mm long x 330mm wide

Packaging

10 pcs per carton

PERFORMANCE / TECHNICAL DATA

Provides 7,850mm² effective vent area

5mm opening at 1.57m centres

10mm opening at 0.78m centres

25mm opening at 0.3m centres

Airflow resistance

15 litres/sec	30 litres/sec	60 litres/sec
35 Pascals	140 Pascals	560 Pascals

Clay Plain Tile Vent and Uni-Plain Tile Vent

are in-line ventilating tiles which suit most clay and concrete plain tiles.

Area of application

- Suitable for ventilation at high or low levels
- Adaptor and Flexipipe available for soil ventilation or mechanical extraction
- **Clay Plain Tile Vent:** for roofs with a pitch over 30°, optional downpipe to ensure direct ventilation path into the roof space
- **Uni-Plain Tile Vent:** for roofs with a pitch over 35°, built-in downpipe ensures ventilation path into roof space

Product features

- In-line design makes the vent virtually invisible on the roof line
- Simple to install as no tile or batten cutting is necessary

Product Code / Colour

Clay Plain Tile Vent: KG4321	
Brown	-0200
Terracotta	-0100

Related Products

Flexipipe 100/100mm	KG979900
Adaptor	KG8003

Uni-Plain Tile Vent: KG9918

Antique Red	-03
Autumn	-23
Brown	-36
Brown Gran	-02
Hedgerow Brown	-18
Red Gran	-05
Rustic Red	-78
Slate Grey	-30
Terracotta	-34
Cotswold	-12

Related Products

Adaptor & Flexipipe	KG992800
Adaptor only	KG990500
Flexipipe only 100/100mm	KG979900

Dimensions

Clay Plain Tile Vent:

size of 5 plain tiles

Uni-Plain Tile Vent:

300mm long x 330mm wide

Packaging

10 pcs per carton

PERFORMANCE / TECHNICAL DATA

Provides 9,000mm² (Clay Plain Tile Vent) / 6,000 mm² (Uni-Plain Tile Vent) effective vent area

Clay Plain Tile Vent	Uni-Plain Tile Vent		
5mm opening at 1.8m centres	5mm opening at 1.2m centres		
10mm opening at 0.9m centres	10mm opening at 0.6m centres		
25mm opening at 0.36m centres	25mm opening at 0.24m centres		
Airflow resistance	15 litres/sec	30 litres/sec	60 litres/sec
Uni-Plain Tile Vent only:	12 Pascals	48 Pascals	191 Pascals



Uni-Line® Tile Vent

is a neat, cleverly designed vent which suits almost all concrete interlocking tile profiles.

Area of application

- For roofs with a pitch over 20°
- Suitable for ventilation at high or low levels
- Adaptor and Flexipipe available for soil ventilation or mechanical extraction

Product features

- New low profile design makes it unobtrusive on the roof line
- Colour matched grill and base
- Built-in downpipe ensures ventilation path into roof space
- Soil ventilation & mechanical extraction require no adaptor
- Complies fully with the relevant Building Regulations and British Standards

Product Code / Colour

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

Related Products

Flexipipe 100/100mm KG979900

Dimensions

455mm long x 440mm wide x 3mm deep (excluding downpipe)

Packaging

1 pc per carton

(carton shows fitting instructions and template)

PERFORMANCE / TECHNICAL DATA

Provides 10,000mm² effective vent area

5mm opening at 2m centres

10mm opening at 1m centres

25mm opening at 0.4m centres

Airflow resistance

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



Universal Vent Tile

suits most popular interlocking tile profiles.

Area of application

- For roofs with a pitch over 17.5°
- Suitable for ventilation at high or low levels
- Adaptor and Flexipipe available for soil ventilation or mechanical extraction

Product features

- Coloured fluted base matches most popular interlocking tiles
- Fully wind tunnel tested
- Built-in downpipe ensures ventilation path into roof space

Product Code / Colour

KG9854	
Antique Red	-03
Brown	-36
Slate Grey	-30
Terracotta	-34
Black	-76

Related Products

Soil mechanical adaptor + 100/100mm Flexipipe

Soil mechanical adaptor to suit 100mm

Soil mechanical adaptor to suit 100mm/125mm

Flexipipe 100/100mm

Flexipipe 100/125mm

KG979800

KG968300

KG979000

KG979900

KE8047

Dimensions

455mm long x 440mm wide x 3mm deep (excluding downpipe)

Packaging

10 bases, caps per carton

PERFORMANCE / TECHNICAL DATA

Provides 15,000mm² effective vent area

5mm opening at 3m centres

10mm opening at 1.5m centres

25mm opening at 0.6m centres

Airflow resistance

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



High Flow Bold Roll



High Flow Wessex



High Flow Stonewold Mark II



High Flow Regent



High Flow Delta

High Flow Tile Vents

High flow vents are a range of high-flow quality ventilating tiles to suit most popular interlocking roof tiles. They can be used for roof space ventilation at high or low level, or for soil ventilation or mechanical extraction when used with adaptor pack.

Area of application

- High and low level ventilation
- Soil ventilation or mechanical extraction when used with an adaptor packs

Product features and Benefits

- Provide high levels of ventilation
- Vent caps designed to reflect the base tile profile
- Comprehensive range to match most makes of concrete interlocking tiles
- Adaptor and flexipipe available for soil ventilation or mechanical extraction
- Prevents entry of birds and large insects

Material

High quality PVCu

Colour

As below, colour spray to match available with limitations , contact Sales

Office for more information

Product Code

High Flow Wessex – Brown only	KG6092-0200
High Flow Stonewold Mark II – Brown, Grey	KG6083-0200, -0400
High Flow Bold Roll – Brown only	KG6085-200

Dimensions

High Flow Wessex 420mm long x 330mm wide x 122mm deep
 High Flow Stonewold Mark II 430mm long x 380mm wide x 98mm deep
 High Flow Bold Roll 420mm long x 334mm wide x 125mm deep

Packaging

10 units per carton
 5 cartons per pallet

High Flow Tile Vents

High flow vents are a range of high-flow quality ventilating tiles to suit most popular interlocking roof tiles. They can be used for roof space ventilation at high or low level, or for soil ventilation or mechanical extraction when used with adaptor pack.

Dimensions / Weight

High Flow Delta Tile Vent 430mm long x 385mm wide x 105 deep
 High Flow Regent Tile Vent 420mm long x 334mm wide x 122 deep

Colour

As below, colour spray to match available with limitations, contact Sales
 Office for more information

Product Code

High Flow Delta – Brown only	KG4096-0200
High Flow Regent – Brown only	KG6084-0200

Related Products

100mm Adaptor (except for Delta Vent)	KG8000
100mm/100mm Flexipipe	KG979900

PERFORMANCE / TECHNICAL DATA

Vent spacing	5,000mm ^{2/m}	install at 3.0 m centres
	10,000mm ^{2/m}	install at 1.5 m centres
	25,000mm ^{2/m}	install at 0.6 m centres
Airflow resistance	15 litres/sec	3.5 Pascals
	30 litres/sec	14 Pascals
	60 litres/sec	56 Pascals



Universal 20k Tile Vent

20k Tile Vent is a universal Tile Vent that suits most concrete interlocking roof tiles that can be used to ventilate roof voids.

Product features

- Low profile design
- Fully wind tunnel tested

Area of application

- Most popular interlocking and plain tile roofs with a pitch over 17.5°
- Roof space ventilation
- High or low level roof ventilation

Material

Soft and rigid UPVC

Colour

Brown and Slate grey

Product Code

Brown KG9854-20-0247
Slate Grey KG9854-20-0429

Dimensions / Weight (per carton)

455 mm long x 440 mm wide x 91 mm deep, 19kg

Packaging

10 vents per carton
8 cartons per pallet

Regulations and certifications

Complies fully with relevant Building Regulations and British Standards

Related products

When used as high-level ventilation, use in conjunction with Klober Eaves Ventilation products. 150mm adaptor coming soon.

PERFORMANCE / TECHNICAL DATA

Provide 20,000mm² ventilation area

Vent spacing	5,000mm ² /m install at 4.0m centres
	10,000mm ² /m install at 2.0m centres
	25,000mm ² /m install at 0.8m centres

Universal 20k Slate Vent

20k Tile Vent is a universal Tile Vent that suits most concrete interlocking roof tiles that can be used to ventilate roof voids.

Product features

- Fits perfectly with adjacent slates
- Slate grey cap blends in with most man-made or natural slates
- Fully wind tunnel tested

Area of application

- Most popular interlocking and plain tile roofs with a pitch over 20°
- Roof space ventilation
- 600mm x 300mm (24" x 12") and 500mm x 250mm (20" x 10") double lap slates, man-made or natural

Material

Rigid PVC

Colour

Slate grey and Black

Product Code

Slate Grey KG9795-0429
Black KG9795-0540
150mm adaptor KG979700 (call Sales office for availability)

Dimensions

600mm long x 380 mm wide x 91 mm deep, 15kg

Packaging

10 vents per carton
8 cartons per pallet

Regulations and certifications

Complies fully with relevant Building Regulations and British Standards

Related products

When used as high-level ventilation, use in conjunction with Klober Eaves

PERFORMANCE / TECHNICAL DATA

Provide 20,000mm² ventilation area

Vent spacing	5,000mm ² /m install at 4.0m centres
	10,000mm ² /m install at 2.0m centres
	25,000mm ² /m install at 0.8m centres

Airflow resistance

15 litres/sec	30 litres/sec	60 litres/sec
6 Pascals	25 Pascals	99 Pascals



Small Slate Vent

The Small Slate Vent, with the integral down pipe, with a low profile design to blend with the roof line.

Area of application

- For roofs with a pitch of 20°–70°
- For new build or re-roofing applications
- No adaptor required to convert to soil ventilation or mechanical extraction
- Suit 600mm x 300mm (24" x 12") and 500mm x 250mm (20" x 10") double lap slates, man-made or natural

Product features

- Available with an integral downpipe
- Designed to avoid any build up debris inside the vent
- Prevents entry of birds and large insects
- Can be used at high or low level
- Slate Grey cap blends with most man-made or natural slates
- Clearly marked for cutting to various slate sizes

Product Code / Colour

Black	KG972276
Slate Grey (matt finish)	KG972200

Related Product

Flexipipe 75/100mm	KG972400
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Dimensions

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

Packaging

10 per carton

PERFORMANCE / TECHNICAL DATA

Provides 4,500mm² effective ventilation area

5mm opening at 0.9m centres

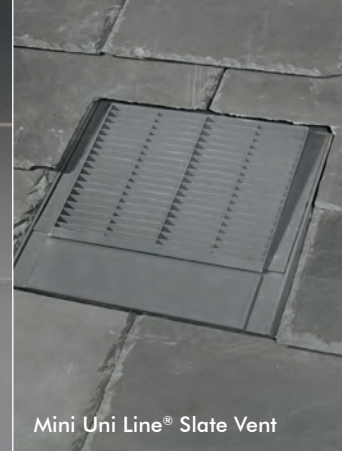
10mm opening at 0.45m centres

Airflow resistance

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



Uni-Line® Slate Vent



Mini Uni-Line® Slate Vent

Uni-Line® / Mini Uni-Line® Slate Vents

Area of application

- For roof pitches of 22.5° and above
- Built-in downpipe allows direct ventilation into roof space

Uni-Line® Slate Vent:

- Universal application suits both 600mm x 300mm or 500mm x 250mm double-lap slates (man-made and natural)
- Batten cutting only required below 225mm gauge (when used with 500mm x 250mm double-lap slates)

Mini Uni-Line® Slate Vent:

- Universal application suits small natural and man-made doublelap slates of 400mm x 250mm and below sizes

Product features

- In-line design
- Fully wind tunnel tested

Product Code / Colour

Uni-Line® Slate Vent: KG9630	
Dark Slate	-0403
Slate Grey	-0429

Mini Uni-Line® Slate Vent:

KG9631	
Dark Slate	-0403
Slate Grey	-0429

Dimensions

Uni-Line® Slate Vent: 600mm long x 380mm wide x 141mm deep (including adaptor)

Mini Uni-Line® Slate Vent: 450mm long x 300mm wide x 147.5mm deep (including adaptor)

Packaging

10 pcs per carton

Related Products

Uni-Flexipipe	KG979900
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PERFORMANCE / TECHNICAL DATA

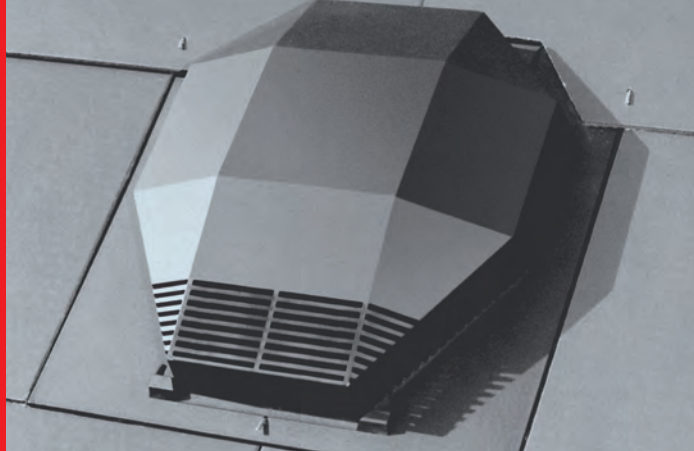
Provide 12,000mm² effective vent area (6,500mm² effective area)

5mm opening at 1.2m centres

10mm opening at 0.6m centres

Airflow resistance

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



10K Slate Vent

is a UV resistant polypropylene vent for roof space ventilation.

Area of application

- For roofs with a pitch of 20°–70°
- For new build or re-roofing applications
- Adaptor and Flexipipe available for soil ventilation or mechanical extraction
- Suits 600mm x 300mm (24" x 12") and 500mm x 250mm (20" x 10") double lap slates, man-made or natural

Product features

- Designed to avoid any build up of debris inside the vent
- Prevents entry of birds and large insects
- Low profile design to blend with the roof line
- Slate Grey cap blends with most man-made or natural slates
- Clearly marked for cutting to various slate sizes

Product Codes

10K Slate Vent	KG968900
10K Adaptor	KG979100
Flexipipe 100/100mm	KG979900
Adaptor and Flexipipe	KG979200

Colour

Slate Grey (matt finish)

Dimensions

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

Packaging

10 pcs per carton

PERFORMANCE / TECHNICAL DATA

Provides effective vent area 10,000mm²

5mm opening at 2m centres

10mm opening at 1m centres

1



2



3



4



5



6



7



Soil and Mechanical Vent Adaptors & Flexipipes

Packs consist of an adaptor, together with Klobber's quick push-fit high quality flexible pipe.

Area of application

- For roofs with a pitch over 17.5°

Product features

- Quick and simple connection to internal pipework
- Lightweight, durable – no tile cutting or lead flashing required
- Pressure tested to comply with relevant British Standards

Material

Adaptor - Rigid PVC 10K Slate Vent Adaptor – polypropylene

Flexipipe - Galvanised spring steel wire helix encapsulated in double-ply PVC wall

Product Code / Dimensions

1. & 6. Adaptor and Flexipipe (Universal/Large Slate Vents)	KG979800
170mm long x 120mm wide x 90mm deep – 105mm internal diameter	
2. & 6. Adaptor and Flexipipe (10K Slate Vent/Profile-Line® Vents)	KG979200
76mm long x 86mm wide x 120mm deep – 105mm internal diameter	
3. & 6. Adaptor and Flexipipe (Uni-Plain Tile Vent)	KG992800
273mm long x 44mm wide x 200mm deep – 105mm internal diameter	
2. Adaptor (10K Slate Vent/Profile-Line® Vents)	KG979100
76mm long x 86mm wide x 120mm deep – 105mm internal diameter	
3. Adaptor (Plain Tile Vent)	KG990500
273mm long x 44mm wide x 200mm deep – 105mm internal diameter	
4. Adaptor (Clay Plain Tile Vent)	KG8003
Adaptor for High Flow Vents for Bold Roll, Stonewold Mark II, Regent, Wessex (not shown)	KG8000
1. Adaptor (100mm Universal Vent Tile)	KG968300
Adaptor (125mm Universal Vent Tile - not shown)	KG979000
7. Flexipipe (100/100mm)	KG979900
6. Flexipipe (75/100mm) including jubilee clips	KG972400
5. Flexipipe (100/125mm)	KE8047



Pipe Sealing Collar

is the ideal solution for creating airtight and windtight seals around pipes which pass through the roof.

Area of application

- For pitches of 10°–70° due to the highly flexible ridges in the collar

Product features

- For use both inside and outside
- UV stable
- Easy to install
- Flexible material allows pipes from 100mm plus diameter to pass through the roof
- Use with Klober's sealing tape to create fully windtight and airtight seals between the underlay or vapour control layer and pipes which penetrate the roof
- Suitable for both rigid and flexi pipes
- Suitable for areas with adverse weather conditions. High quality EPDM collar is highly durable for use inside where heat builds up and outside in very cold conditions

Material

EPDM

Product Code

KU8001

Colour

Black only

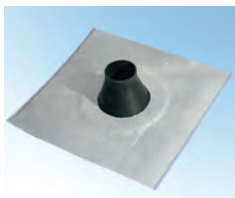
Dimensions

310mm long x 235mm wide x 115mm high; inside diameter: 95mm

Packaging

20 pcs per carton

48 cartons per pallet



Other sealing collars are also available. Ask for details.



Roll-Fix® Kit

Roll-Fix® Kit is a universal ventilating dry ridge and hip system suitable for ventilating most concrete and clay ridge/hip tiles. Available in 4 colours to blend in with the roof, it comes in a practical all-in-one kit.

Area of application

- For most concrete ridge and hip tiles, including clay angle ridge tiles
- For clay ridge tiles
- Minimum roof pitches of 15° to 45° maximum
- Installation temperature +5 to +40°C
- Resistance to temperature -20 to +80°C

Product features

- Mortar and maintenance free, weatherproof and UV stable
- No harmful effects on surrounding materials and components
- Highly resistant to mould growth and fungal attack
- Ventilates to BS5250
- Complies with BS 5534 for mechanical fixing
- Self-adhesive butyl strip provides a permanently strong bond

Description

Roll-Fix® rolls are finished with a durable, UV-stable coloured aluminium coating (colours below) with centre fleece being vapour permeable.

Roll-Fix® kits are complete packs for mechanical fixing to adhere to dry fix regulation and British Standard.

Weight

As a guide for handling and stacking, each box weighs approximately 3.5kg

Material

Polypropylene membrane with a mesh fabric.

Lower portion of each side flap: UV stable coloured aluminium coating or applied copper finish

Klober hip packs comes complete with cro clips for secondary fixings. The wire is wrapped to a the nearest nail for securing the cut tile.





Roll-Fix® Kit

Product Codes

Roll-Fix® Kit with:

Concrete Universal Ridge Seal	KR5000
Concrete Universal Hip Seal (inc. Cro Clips and Hip Trays)	KR5001-1
Clay 1/2 Round Ridge Seal	KR5003
Clay Plain Angle Ridge and Hip Seal	KR5004

Colour Codes

Anthracite	-0402
Brown	-0200
Terracotta	-0100
Copper	-0340 (Copper finish available on request)

Dimensions

295mm roll width x 5m lengths Hip Trays in 470mm lengths

Packaging

- One Roll-Fix® Kit per box.
- Each box contains 5m ridge or hip roll, fixing pack, seals and Hip Trays (KR5001-1 only)

Installation

To allow ridge ventilation, cut the underlay 30 mm short of apex on each side. The method of fixing ridge battens will depend upon the type of roof structure. Once the ridge batten is in position, Roll-Fix® is rolled out along the ridge or hip and stapled or nailed to the ridge/hip batten. Peel away the adhesive strip's backing tape and push-fit the corrugated side flaps to follow the profile of the tiles. The ridge tiles are secured by using the screw and washer provided to fix the Clamping Plate through the Ridge Seal into the ridge batten as shown above. Finish the ridge ends with either a Klobber Ridge End Cap, block end ridge tile or mortar. Full fixing instructions are included in Roll-Fix® Kit packs.

Performance

Provides the equivalent of a continuous 5mm opening.



Uni-Dry Ventilating Ridge

Neat, secure, maintenance-free, all-weather mechanical fixing method for half-round and angled ridge tiles, providing high-level ventilation and avoiding wind uplift problems.

Area of application

- For roofs with 15° to 45° pitches
- For use in refurbishment or new build applications

Product features

- Mortar-free eliminating wet trades and associated problems
- Universal Flexi-seal suits most manufacturers' ridge tiles
- Incorporated high level ventilation to BS5250
- Quick and easy to fit to most makes of roof tile and slates
- Lightweight and durable
- All weather fixing and maintenance free

Material

Ridge Comb: polypropylene and non-woven acrylic nitrile fibre

Ridge Batten Strap: stainless steel

Ridge-to-Ridge Seal : polypropylene

Ridge-to-Ridge Seal Drive Screw: stainless steel with elastomeric Washer and neoprene Washer

Clamping Plate: stainless steel

Dry Ridge Spacers: polypropylene (with Angle Pack only)

Product Codes

Half Round Ridge (pack)	KR974600
Angle Ridge (pack)	KR966800
300mm Clay Half Round Ridge (pack)	KR967300
Flexi-seal (pack)	KR974500
To ventilate flat tiles with Half Round Ridge tiles Klobber Dry Ridge Spacers must be purchased separately.	

Packaging

Each carton contains 3 packs, each pack contains (5m packs; 15m in a carton):

- 5m sections of Ridge Comb
- 11 Ridge-to-Ridge Seals
- 11 Clamping Plates
- 11 Ridge Seal Screws with Washers
- 11 Ridge Batten Straps
- 22 Dry Ridge Spacers (Angle Pack only)



Eaves Filler Comb

Simple to install method to protect against entry of birds vermin and debris, through gaps left by tile profiles at the eaves.

Area of application

- Eaves Filler Comb - deep profiled tiles and plain tiles

Product features

- Lightweight and durable, fixing slots allow easy fixing
- Protects against entry of birds, vermin and debris
- Maintains low level air movement in the batten cavity and allows moisture run-off below the roof finish
- One-piece perimeter closer detail for counter batten roof systems
- Comb adjusts to suit any profile of tile

Material

Black polypropylene

Product Codes

KP965400

Colour

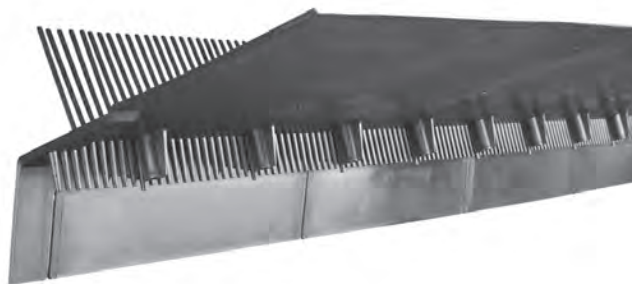
Black only

Dimensions

1m long strips

Packaging

300 x 1m lengths per carton



Vented Eaves Protector

is the fast and easy way to ventilate and protect at the eaves, consisting of a practical 1000mm Over Fascia Vent with integrated Underlay Support Tray, and available with or without an Eaves Filler Comb.

Area of application

- New build and refurbishment work
- Roof pitches between 15° and 60°
- Flat and profiled tiles

Product features

- Easy to fit 1000mm lengths
- Available in 10mm version
- Split drip section allows 240mm sections to be lifted, enabling easy fixing of gutter brackets
- Engineered nail/screw ports, with sleeves to guide fixings into the centre of the fascia edge
- Prevents birds and vermin from entering the batten space
- Prevents ponding behind the fascia board
- Satisfies NHBC requirements and BS5250:2000
- Available with or without an Eaves Filler Comb

Material

Black injection moulded UV-stable polypropylene

Product Codes

10mm without comb

10mm with comb

KP3005-0450

KP3006-0450

Colour

Black only

Dimensions

1000mm x 220mm

Packaging

40 pieces per carton (without comb)

20 pieces (with comb)

Performance

Provides ventilation of 10,000mm²/per metre run.



Loft Vent Tray

is easily installed from inside the loft, to allow air into the roof space by preventing insulation material from blocking the ventilation path.

Area of application

- Suitable for use in refurbishment or new build

Product features

- Adjusts itself to pitch of roof
- No need to disturb roof covering
- Lightweight and durable
- Loft Vent Tray complies fully with relevant Building Regulations and British Standards

Material

PVC

Dimensions

315mm wide x 700mm long x 30mm deep

Product Code

KP965000

Colour

Black only

Packaging

10 trays per pack, 5 packs per carton (50 off)

Performance

Provides a ventilation area of 10,000mm² per metre run when installed between rafters at eaves level.



Fascia Vent

provides unobtrusive continuous eaves ventilation.

Area of application

- Suitable for new build or re-roofing application
- 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)
- The 10mm vent is suitable for conventional cold roofs

Product features

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

Material

Polypropylene

Dimensions

10mm Vent	1 m long x 42mm wide x 25mm deep
25mm Vent	1 m long x 48mm wide x 38mm deep

Product Code / Dimensions / Packaging

KP965200	10mm x 1 m long	50 off (50m)
KP964300	25mm x 1 m long	50 off (50m)

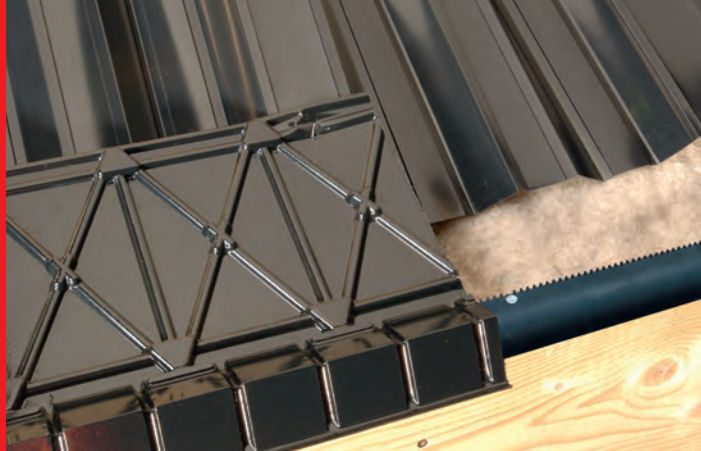
Colour

Black only

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).





3-in-1 Eaves Vent Pack

A complete 6m pack for eaves ventilation over the fascia (comprising of Fascia Vents, Underlay Support Trays and Roll-Out Rafter Tray).

Area of application

- Suitable for new build or re-roofing applications
- Suitable for rafter centres 400mm – 600mm wide

Product features

- Lightweight, durable, quick and easy to install
- Provides a clear ventilation channel above the insulation
- Prevents felt ponding behind the gutter

Material

Fascia Vent: Black polypropylene

Underlay Support Tray and Roll-Out Rafter Tray: Black PVC

Product Codes

300mm wide x 6m tray (10mm Fascia Vent)	KP990200
300mm wide x 6m tray (25mm Fascia Vent)	KP966700
400mm wide x 6m tray (10mm Fascia Vent)	KP990400
400mm wide x 6m tray (25mm Fascia Vent)	KP966800
Underlay Support Tray x 50 off (available separately)	KP984600

Dimensions

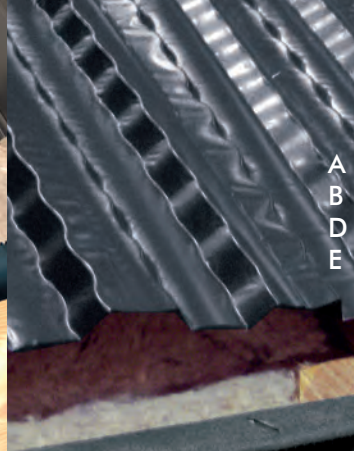
10mm Fascia Vent	42mm wide x 1m long x 25mm deep
25mm Fascia Vent	42mm wide x 1m long x 19mm deep
Roll-Out Rafter Tray	300mm wide x 6m long or 400mm wide x 6m long
Underlay Support Tray	265mm wide

Packaging

- 6 x Fascia Vents
 - 10 x Underlay Support Trays
 - 1 x Roll-Out Rafter Tray
- (sufficient to cover 6m of eaves)

Performance

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



Roll Out Rafter Tray and Rafter Trays

Simple and quick to install, combined insulation interrupter and roof space ventilator.

Area of application

- Suitable for use in refurbishment or new build
- Rafter Trays roof pitches over 15°
- Roll Out Rafter Trays roof pitches over 12.5°

Product features

- Provides a clear ventilation channel above the insulation
- Lightweight and durable

Material

Roll-Out Rafter Tray: Black PVC

Rafter Tray (sections): Black high-impact styrene

Product Codes

Roll-Out Rafter Tray:	300mm width	KP971500
	400mm width	KP975700
	600mm width	KP971600
	800mm width	KP971700

Rafter Tray (sections):

Each pack – sufficient for 4.5 metres at 450mm rafter centres	KP964800
Each pack – sufficient for 6 metres at 600mm rafter centres	KP964900

Dimensions

Roll-Out Rafter Tray: 300/400/600/800mm wide x 6m long x 55mm deep

Rafter Tray (sections):

450mm Rafter Trays (450mm centres) – 430mm wide x 450mm long x 18mm deep
600mm Rafter Trays (600mm centres) – 430mm wide x 620mm long x 18mm deep

Packaging

Roll-Out Rafter Tray: 10 rolls per carton
Rafter Tray (sections): 10 trays per pack, 10 packs per carton (100 off)

Performance

The Roll-out Rafter Tray provides the equivalent of a 10mm or 25mm opening (10,000mm² and 25,000mm² per metre respectively). The rigid section Rafter Tray provides the equivalent of a continuous 10mm opening.



Circular Soffit Vent

are easy to install, providing eaves ventilation through the soffit for new build or re-roofing.

Area of application

- Suitable for installation in soffit boards of any thickness

Product features

- Available in four colours to match painted or stained soffits
- Lightweight, durable, fits any thickness soffit board – complies fully with relevant Building Regulations and British Standards
- Easy circular fixing

Material

Polypropylene

Product Codes / Colours

Dark Brown – 50 off

Light brown – 50 off

Black – 50 off

White – 50 off

KP9642-0247

KP9642-0220

KP9642-0450

KP9642-0900

Dimensions

75mm diameter x 13mm deep

Packaging

50 pcs per carton (50 off)

Performance

For 10mm continuous ventilation install at 200mm centres, for 25mm continuous install at 80mm centres.



Permo® air

is a breathable air-open low resistance underlay on the market. It is the ideal solution where there is a high risk of condensation forming in the roof space.

Area of application

- Suitable for cold and warm roof applications

Product features

- Air open & vapour-permeable
- Tailor made to perform in extreme climate conditions
- No ventilation required
- Hydrophobically treated and UV stable for four months
- Batten spacing 350mm
- Strong 3 layer material
- Recyclable

Material

A strong three-layer product consisting of UV stabilised PP fleece and a high performance meltblown layer

Roll sizes / Roll weights / Product Code

50 x 1.0m	(50m ²)	8.6kg	KU0045-1
50 x 1.5m	(75m ²)	13kg	KU0045-15

Packaging

20 rolls per pallet

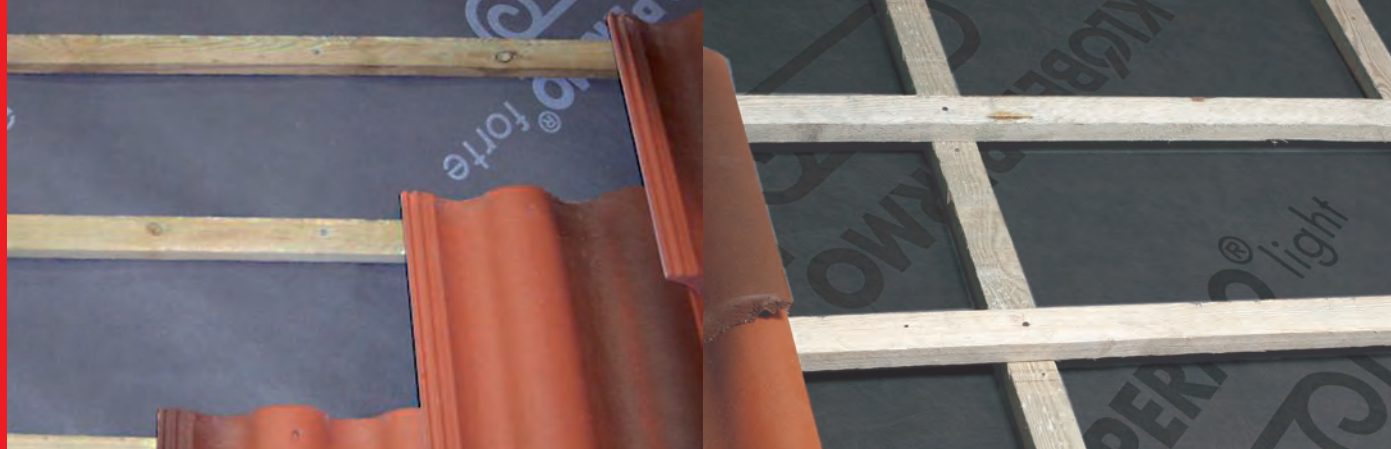
Installation

Permo® air should be laid in accordance with our installation details set out in our Underlay brochure and with the BBA certification.

PERFORMANCE / TECHNICAL DATA



Weight	170g/m ²
Water vapour resistance EN 12572	0.03 MNs/g
Resistance to water penetration, EN 1928	W1
Tensile strength longitudinal / transverse, BS EN 12311-1	366 / 252 N/5cm
Nail tear strength longitudinal / transverse, BS EN 12310-1	230 / 282 N



Permo[®] forte and Permo[®] forte SK²

are four-layer, vapour permeable roofing underlays that let roofs breathe and are suitable for all pitched roofs.

Area of application

- Suitable for cold and warm roof applications

Product features

- Very strong, bitumen-free, vapour-permeable underlay
- Clean, safe and lightweight to handle
- Four layer material with safety grid
- No ventilation of the roof void required
- Hydrophobically treated and UV stable for four months
- Batten spacing 350mm
- Allows roof structure to breathe, yet fully waterproof
- SK² has a double integral tape – creating a strong & durable airtight seal to reduce energy loss

Material

A strong, laminated sheet material, with outer layers of polypropylene and an inner layer of microporous polyethylene film and reinforcement mesh

Roll sizes / Roll weights / Product Code

Permo[®] forte	50 x 1.5m	(75m ²)	11.5kg	KU0044-07
	50 x 1.1m	(55m ²)	8.5kg	KU0044-07-05
Permo[®] forte SK²	50 x 1.5m	(75m ²)	11.5kg	KU0044-07-11

Packaging

20 rolls per pallet

Installation

Permo[®] forte should be laid in accordance with our installation details set out in our Underlay brochure and with the BBA and IAB certification.

PERFORMANCE / TECHNICAL DATA



Weight	150g/m ²
Water vapour resistance BS 3177	0.15 MNs/g
Water vapour transmission s _d -Value EN ISO 12572	0.03m
Water column	W1
Tensile strength longitudinal / transverse, BS EN 12311-1	430 / 370 N/5cm
Nail tear strength longitudinal / transverse, BS EN 12310-1	364 / 392 N

Permo[®] light

are three-layer, vapour permeable roofing underlays that let roofs breathe.

Area of application

- Suitable for cold and warm roof applications

Product features

- Strong, bitumen-free, vapour-permeable underlay
- Clean, safe and lightweight to handle
- Three-layer material
- No ventilation of the roof void required
- Hydrophobically treated and UV stable for four months
- Allows the roof structure to breathe yet fully waterproof

Material

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

Roll sizes / Roll weights / Product Code

Permo[®] light	50 x 1.5m	(75m ²)	11kg	KU0043-04
	50 x 1.1m	(55m ²)	8.5kg	KU0043-04-05

Packaging

20 rolls per pallet

Installation

Permo[®] light should be laid in accordance with our installation details set out in our Underlay brochure and with the BBA approval certification.

PERFORMANCE / TECHNICAL DATA



Weight	145g/m ²
Water vapour resistance BS 3177	0.18 MNs/g
Water vapour transmission BS 3177	1149 g/m ² /day
Water column	> 2m
Tensile strength longitudinal / transverse, BS EN 12311-1	264 / 210 N/5cm
Nail tear strength longitudinal / transverse, BS EN 12310-1	116 / 96 N



Permo® ecovent NG

is a lightweight vapour permeable roofing underlay.

Area of application

- Suitable for BBA approved for non-ventilated cold and warm roofs

Product features

- Lightweight vapour-permeable roofing underlay
- Three-layer material
- No additional ventilation required
- UV stable for four months
- Allows the roof structure to breathe yet fully waterproof
- Type LR underlay

Material

A laminated sheet material, with outer layers of polypropylene, and an inner layer of polyethylene

Roll sizes / Roll weights

1.5m x 50m	75m ²	7.6kg
1.0m x 50m	50m ²	5.1kg

Product Code

1.5m	KU0039-1-15
1.0m	KU0039-1-01

Packaging

1.5m	20 rolls per pallet
1.0m	30 rolls per pallet

Installation

Permo® ecovent NG should be laid in accordance with the fitting instructions supplied with each roll and with the BBA approval certification.

PERFORMANCE / TECHNICAL DATA



Weight	102 g/m ²
Water vapour resistance BS 3177	0.14 /MNs/g
Water vapour transmission s _d -Value EN ISO 12572	<0.03 m
Water column	W1
Tensile strength longitudinal / transverse, DN EN 13859-1	250N/50mm 140N/50mm
Nail tear strength longitudinal / transverse, DN EN 13859-1	100N / 95N



Permo® frame

is a single-layer, vapour permeable membrane for use on timber framed walls and behind vertical cladding.

Area of application

Suitable for:

- On timber and steel framed walls
- In factory pre-assembled panels and on site assembled frames
- To support the insulation in a suspended timber ground floor

Product features

- Strong, vapour-permeable, timber frame membrane
- Allows walls to breathe, yet is fully waterproof
- UV stable for four months
- BBA and IAB approved

Material

A strong non woven spun bonded polypropylene sheet material

Roll sizes / Roll weights

1.5 x 50m	75m ²	7.5kg
2.7 x 100m	270m ²	27kg

Colour / Product Code

2.7m	Anthracite	KU0059-2-1-27-10
1.5m	Anthracite	KU0059-2-1-15-10

Packaging

20 rolls per pallet (1.5m only)

Installation

Permo® frame should be laid in accordance with our installation details set out in our Underlay brochure and with the BBA and IAB certification.

PERFORMANCE / TECHNICAL DATA



Weight	100g/m ²
Water vapour resistance BS 3177	0.06 MNs/g
Water vapour transmission s _d -Value EN ISO 12572	<0.017m
Water column	230mm
Tensile strength longitudinal / transverse, BS EN 12311-1	195 / 205 N/5cm
Nail tear strength longitudinal / transverse, BS EN 12310-1	187 / 167 N



Permo® sec metal

is a vapour-permeable waterproofing barrier, installed as a separating layer between copper, zinc, aluminium and stainless steel standing seam roof finishes and the supporting deck.

Permo® sec metal 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.

Area of application

Suitable for:

- Roof pitches over 3°
- Can be laid over rigid insulation or timber boarding, horizontally or vertically

Product features

- Clean, safe and lightweight to handle
- Will cover any irregularities within the roof deck that could deform the metal roof covering
- Simple to install, using traditional methods
- Fully vapour-permeable, it provides a strong, fully waterproof secondary barrier to moisture penetration

Material

Outer layer of polypropylene mesh bonded to a vapour permeable membrane. 5 layer fleece foil combination of polyolefin, hydrophobic treatment and PP monofilament mesh.

Roll sizes / Roll weights

25 x 1.5m (37.5m²) 14.5kg

Product Code

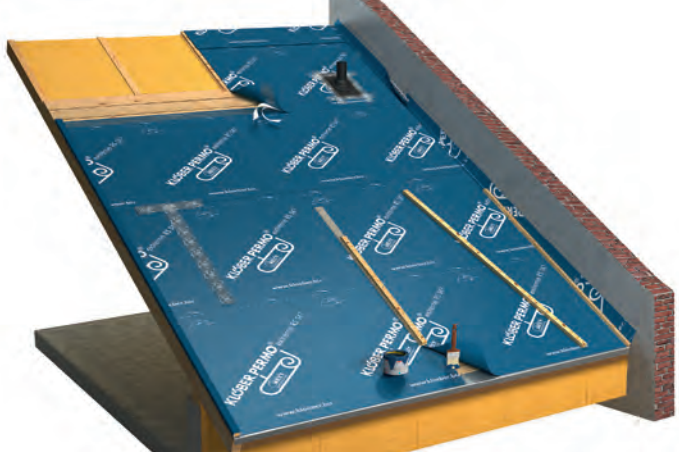
KU0020-04

Installation

Permo® sec metal be laid in accordance with our installation details set out in our Underlay brochure.

PERFORMANCE / TECHNICAL DATA

	CE
Weight	390g/m ²
Thickness	8.5mm
Water vapour transmission s _d -Value, EN 12572	0,03m
Acoustic damping value	8db



Permo® extreme RS SK²

is a tear-resistant underlay. It has double, self-adhesive strips which provide a permanent seal of overlaps and immediate weatherproofing protection against wind, rain and snow. (Call Technical for further advice)

Area of application

Suitable for:

- Minimum roof pitch of 10° *
 - Meets the requirements as a roof support system with improved raintightness according to ÖNORM
 - Klobert recommends that the membrane is laid on a 12mm plyboard/ OSB then counter-battened. Butylon® tape should be laid underneath where the counter battens are due to be fixed.
- Contact Technical for more information.

Product features

- Double self-adhesive strips permit permanent wind and waterproof sealing of overlaps (shear resistance > 300 N tested)
 - High-temperature stability at peaks up to 100°C and highly UV-resistant
 - Fleece with capillary stop controls the formation of condensation water
- Robust PES fleece ensures improved mechanical load capacity, thus facilitating the use on sheathing

Material

Glueable two-layered underlay with monolithic TPU coating on extremely tear-resistant PES fleece.

Roll sizes / Roll weights / Product Code

1.5m x 50m (75m²) / 18kg / KU0171-11

Accessories

KU0136 Permo® extreme sealant (1K PUR air humidity hardening liquid sealant)
KU0103 / KU0104 Butylon® tape (see page 39)

*Klobert accessories are recommended. These are especially coordinated with the layer and included in the warranty.

PERFORMANCE / TECHNICAL DATA

	CE
Weight	240g/m ²
Resistance to water penetration, EN 1928	W1
Water vapour permeability s _d -value, EN 12572	0.08m
Water Column, EN 20811	> 4500mm
Tensile strength longitudinal / transverse, en BS EN 12311-1	310 / 360 N/5cm
Nail tear strength longitudinal / transverse, BS EN 12310-1	215 / 200 N
UV exposure, EN 13859-1	4 months



Wallint® 50

Wallint® solar (reflective)

are combined air barriers and vapour control layers with a vapour resistance of 250MNsg, meeting the requirement of BS9250.

Vapour control layers prevent large volumes of water vapour entering the construction from the interior, particularly during the building's drying out period. Their relatively low vapour resistance also allows any damp timbers within the construction to rapidly dry out.

Their strength allows them both to provide an effective supporting/retaining layer to insulation boards or quilts.

Related products include: Pasto® sealant, Permo® TR universal tape, Tacto® double-sided tape, Easy-Form® stretchable tape and Pipe Sealing Collars.

Area of application

Suitable for:

- The inner face of walls (including timber frame), cold and warm roof applications
- Ceilings and walls of rooms in the roof, and on ceilings below non-habitable lofts

Product features

- Very strong internal air barrier/vapour control layers
- Wallint® solar's reflective surface increases a construction's thermal resistance when facing into the service void or room
- Easy to handle and UV stable for four months

Material

Wallint® 50: Composite PP-spun fleece with coating

Wallint® solar: Composite woven, non woven, foil

Roll sizes / Roll weights / Product Code

Wallint® 50: 50 x 1.5m (75m²) 9.5kg KU0065

Wallint® solar: 50 x 1.5m (75m²) 13.5kg KU0063

PERFORMANCE / TECHNICAL DATA



	Wallint® 50	Wallint® solar
Weight	126 g/m ²	180 g/m ²
Water vapour resistance BS 3177	W1	W1
Water vapour transmission BS EN 1931 (s _d value)	50m	>100m
Elongation longitudinal / transverse EN 12311-2	60 / 65%	40 / 50%
Tensile strength longitudinal / transverse, BS EN 12311-1	200 / 160 N/5cm	600 / 550 N/5cm



Sepa® light

Sepa® light is a lightweight alternative to traditional 1F bituminous felt.

Area of application

- Suitable for use on ventilated pitched roofs

Product features

- Strong, bitumen-free, non-breathable underlay
- Clean, safe and lightweight to handle
- UV exposure 4 months
- Three-layer material
- High tensile and nail tear strength
- Simple to install, using traditional methods
- Marked 100mm and 150mm lap lines for easy alignment
- Not susceptible to noise when windy

Material

Three-layer, non-woven, spun-bonded polypropylene

Roll sizes / Roll weights / Product code

Sepa® light 45m x 1m (45m²) 5.6kg KU979145-1

Packaging

42 rolls per pallet

PERFORMANCE / TECHNICAL DATA



	Sepa® light
Weight	120g/m ²
Water vapour transmission EN 1931 (s _d value)	33m
Water vapour transmission EN 1931 (s _d value)	2.19 MN.s/g
Tensile strength longitudinal BS EN 12311-1	240 N/5cm
Tensile strength transverse BS EN 12311-1	220 N/5cm



Adhesive tapes and sealants

Tapes and sealants are essential products for reducing energy-loss through the roof by sealing laps in underlays, air barriers and vapour control layers and around roof penetrations, etc.

1. Permo®TR plus tape

- Multi-functional, single-sided tape – ideal for joining, repairing and creating airtight seals
- Ideal for use with Wallint® 50 or Wallint® solar since it retains its low emissivity properties

2. Tacto® tape

- Double-sided – highly durable, creates air and wind-tight seals
- Fibre-reinforced for strength, with high-tack acrylic adhesive

3. Easy-Form® tape

- Up to 70% stretchable, ideal for creating tight seals around traditionally difficult areas such as pipes, penetrations, etc
- Full butylon backing offers excellent adhesion
- Quick and easy to use – inside and outside

4./5. Butylon® tape

- Double-sided tape, ideal for creating seals around nail penetrations through underlays/AVCL's or adhering underlays/AVCL's to both smooth and rough surfaces

6. Pasto® Sealant

- Sealing to irregular and rough surfaces
- Humidity of 15° or more

PERFORMANCE / TECHNICAL DATA

Material	Reel size	Product code
Permo® TR plus tape		
Acrylic adhesive with PE release paper	60mm x 25m	10 reels per carton KU0121-1
Tacto® tape		
Acrylic adhesive with PE release paper	20mm x 50m	10 reels per carton KU 0111
Easy-Form® tape		
Creppe coated aluminium, PET fleece, complete coating with self-adhesive butylon	60mm x 10m 90mm x 10m	6 reels per carton KW0060 KW0090
Butylon® tape		
Double-sided butylon-rubber adhesive	20mm x 25m 50mm x 25m	4 reels per carton KU0103 KU0104
Pasto® Sealant		
MS polymer	310ml tube	12 tubes per carton KU0128

Trapac® Tile & Snow Guard

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

Area of application

- Suitable for clay and concrete interlocking tiles with battens between 24–40mm deep. The complete thickness of the tile and the tile batten must not exceed 57mm.
- Suitable for new build and refurbishment projects

Product features

- Quick and easy to install
- Lightweight and easy to fit without need for an additional support batten
- Suitable for both flat and profiled clay and concrete interlocking tiles
- Galvanised and powder coated
- Prevents slipping tiles from falling

Material

Galvanised flat steel DX51D-Z275 to EN10142

Colour

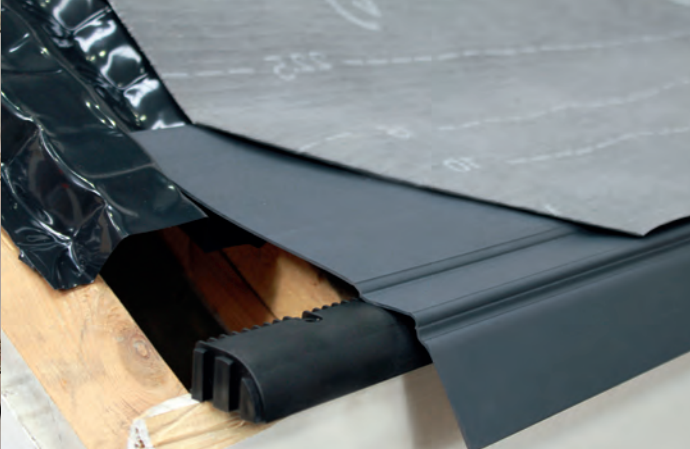
Black -9905 (available in Brown, Red & galvanised on request)

Product Code / Packaging

Tile Support Brackets*	KS9220-2
Slate Support Brackets*	KS9221
Grid 3m long	KS9210
Grid Connector	KS9215

* Grid is 3m in length and requires 5 brackets to support.
Each joint requires 2 connectors.

For other Roof Safety Products please contact the Sales Office.



Easy-Form® plus Flashing

can be used as a flashing for all abutments at walls, chimneys, rising parts of structures such as dormers, fire walls and other abutments in the roof area.

Area of application

- Universal – suitable for all tile, clay & slate profiles
- Suitable for new build or refurbishment

Product features

- Perfect match of flexibility and rigidity
- Creating weathertight wall connections
- Bridges gaps up to 5cm
- Highly durable – giving similar life expectancy as for lead or zinc
- Wide range of applications
- Flexible and stretchable material – quicker and easier to install than lead
- Strong adhesive butyl backing is self-fixing to dry surfaces
- Does not suffer from wind uplift

Material

Creped coated aluminium, PET-foil, PET-fleece, complete coating with metal grid and self-adhesive butyl

Dimensions

5m lengths with three widths: 250mm, 300mm and 450mm

Product Codes / Colours

	250 mm	300 mm	450 mm
	KW4250-05	KW4300-05	KW4450-05
Red	-0154	-0154	-0154
Anthracite	-0469	-0469	-0469
Dark Brown	-0248	-0248	-0248
Zinc Grey	-0470	-0470	-0470
Black	-0450	-0450	-0450

Packaging

250mm and 300mm 5 rolls per carton

450mm 2 rolls per carton

PERFORMANCE / TECHNICAL DATA

Roof pitch	10°
Temperature resistance	-20°C to 80°C
Installation temperature	+5°C to 40°C
Thickness	approx. 1.7 mm

Underlay Support Tray

ensures no underlay is carried into the gutter and prevents water ponding behind the fascia; thereby reducing long term maintenance to the eaves of a building.

Area of application

- Suitable for new build and refurbishment applications

Product features

- Provides clear drainage point into gutter, directing water away from the underlay
- Protects the roofing underlay from UV degradation
- Highly recommended when existing fascia boards are being replaced
- Easy to install and economic replacement for rotting underlay at eaves
- Prevents ponding behind the fascia and the underlay sagging between rafters

Material

PVC

Dimensions

1.5m long x 190 wide with 55mm overhang

Product Code

Underlay Support Tray:

KP973910

Product sizes

30m per pack 1.5m

Packaging

20 pcs x 1.5m lengths per pack

25 packs per pallet



Uni-Click® Dry Verge

Designed to provide a mortar-free and secure method of fixing concrete interlocking verge tiles. Its neat interlocking design provides a consistent appearance that requires no maintenance.

Area of application

- Refurbishment or new build on roofs from 12.5° to 90°
- Most makes and profiles of concrete interlocking tiles between 260-350mm batten gauge

Product features

- Mortar free
- All weather fixing
- Secure mechanical fixing avoids wind uplift problems
- Quick and easy to fit – no special tools required
- Available in 4 colours to blend in with roof tiles
- Neat attractive appearance
- Weatherproof and maintenance free
- Unaffected by settlement or differential movement
- UV stable
- Prevents entry of birds and large insects

Material

Dry Verge Unit	- UPVC	Ridge End Cap	- polypropylene
Eaves Closure	- polypropylene	Batten End Clip	- stainless steel
Ridge Closure	- polypropylene		

Product Codes

Dry Verge Unit – left hand	KR9765
Dry Verge Unit – right hand	KR9770
Uni-Ridge End Cap Half Round	KR9772
Universal Angle End Cap	KR9773
Eave Ridge cartons	KR9733
Batten End Clips	KR977100

Colour / Colour Codes

Black	-0450	Brown	-0247
Slate Grey	-0429	Terracotta	-0152

Packaging

Dry Verge Unit (left or right hand):	10 units per pack – 5 packs per carton
Batten End Clip:	50 Clips per pack – 10 packs
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, Nails	20 packs per carton

Contract Dry Verge

All-weather, quick and easy fixing, requiring no special tools, compatible with any ridge system, wet or dry.

Area of application

Suitable for:

- Refurbishment or new build on roofs from 12.5° to 90°
- Makes and profiles of concrete interlocking tiles between 260-350mm batten gauge

Product features

- Mortar free, all weather fixing and UV stable
- Secure mechanical fixing avoids wind uplift problems
- Quick and easy to fit – no special tools required
- Weatherproof and maintenance free
- Unaffected by settlement or differential movement
- Prevents entry of birds and large insects

Material

Dry Verge unit	- polypropylene
Eaves Closure	- polypropylene
Ridge Closure	- polypropylene
Ridge End Cap	- polypropylene
Batten End Clip	- stainless steel

Dimensions

397mm long x 139mm wide x 59mm deep

Product Codes / Colours

Dry Verge Unit Left Hand	Brown	KR9785-0247
	Slate Grey	KR9785-0429
Dry Verge Unit Right Hand	Brown	KR9790-0247
	Slate Grey	KR9790-0429

Packaging

10 units per pack – 5 packs per carton

Can also be used for this products (but only for brown and slate grey):

Uni-Ridge End Cap Half Round	KR9772
Universal Angle End Cap	KR9773
Eave Ridge cartons	KR9733
Batten End Clips	KR977100

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, Nails; 20 packs per carton



Uni-Line Continuous Dry Verge

'T' Strip – suits most plain and profile concrete interlocking tiles. For bold roll and double pantile, fit the 'T' Strip on top of batten.

'S' Strip – suits all fibre cement, natural and synthetic slates up to 8mm in thickness.

Scot Strip – suits all fibre cement, natural and synthetic slates, up to 8mm in thickness, on boarded roofs with top of batten fixing.

Area of application

- Refurbishment or new build
- For roof pitches 12.5° - 90°
- Slates and tiles

Product features

- Quick and easy to install, maintenance free, neat finish
- Ideal for use with UPVC bargeboards, fascias and soffits
- Gives extra security at verge against wind damage
- Can be used on existing roofing ('T' Strip only)

Material

UPVC – UV stabilised

Colour / Product Codes

'T' Strip – Black	KR980376
'T' Strip – Brown	KR980378
'T' Strip – White	KR980377
'S' Strip – Black	KR980476
Scot Strip – Black	KR980676

Packaging

4 x 5m lengths per pack

Related Products

Connectors (for 'T' Strip only)

Black	KR980576
Brown	KR980578
White	KR980577

Ridge End Caps

Black	Half Round	Universal Angle
Brown	KR977276	KR977376
White	KR977236	KR977336
	KR977277	KR977377

Secret Gutter

is a high performance secret gutter for use with all flat interlocking tiles which provides a secondary line of defence against wind driven rain at wall abutments.

Area of application

- flat interlocking tiles

Product features

- Cost effective alternative to lead
- Lightweight and durable
- Quick and easy to install
- Anti-capillary rib provides extra watertightness

Material

UV stabilised PVC

Product Code

KR972000

Colour

Black

Dimensions

3m x 97mm wide x 1.1mm

Weight (per pack)

10kg per 5 pcs

Packaging

Banded in packs of 5 pcs



Bonding Strip

The Bonding Strip is an excellent way of providing a watertight junction above the party wall between different roof finishes when re-roofing.

Area of application

- Provides a weathertight junction between two different roof finishes above the party wall.

Product features

- Provides a weathertight junction between differing roof finishes
- Lightweight and flexible
- UV resistant
- Safe and easy to cut
- BBA certified



Material

UV stabilised Glass Reinforced Polyester

Product Codes

KR965710

Colour

Grey

Dimensions

3m long x 216mm x 1mm

Weight (per pack)

16kg per 10 pcs

Packaging

Banded in packs of 10

Regulations

Fire tested to comply with BS476: Part 3 SAB and Part 7 Class 3



Dry Bonding Strip

The Dry Bonding Strip is an excellent way of providing a watertight junction above the party wall between different roof finishes when re-roofing.

Area of application

- Provides a weathertight junction between two different roof finishes above the party wall.

Product features

- Provides a weathertight junction between differing roof finishes
- Lightweight and flexible
- UV resistant
- Safe and easy to cut
- Mortar-free

Material

UV stabilised Glass Reinforced Polyester

Product Codes

70mm:

KR966500

110mm:

KR966600

Colour

Grey

Dimensions

Dry Bonding Strip:

3m long x 225mm x 1mm

Weight (per pack)

70mm (for slate version)

19kg per 10 pcs

110mm (for tile version)

24kg per 10 pcs

Packaging

Banded in packs of 10

Regulations

Fire tested to comply with BS476: Part 3 SAB and Part 7 Class 3

BBA certification in process



**KLOBER PRODUCTS
ARE DESIGNED
TO COMPLY WITH
TB28 BEST PRACTICE**
FOR ADVICE &
INFORMATION
ON TB28 PLEASE
CONTACT US



GRP Valleys

provide a robust, durable and lightweight alternative to lead and zinc valleys.

Area of application

- Use on tile and slate pitched roofs
- For plain angles of 90° only
- 20° maximum pitch variance
- 17.5° minimum rafter pitch
- 60° maximum rafter pitch

Product features

- Cost effective alternative to lead
- Lightweight, flexible, safe and easy to cut
- UV resistant
- BBA certified - certificate no 12/4928



Material

UV stabilised Glass Reinforced Polyester

Product Codes

Tile Valley Trough 360
Slate Valley Trough

KR965210
KR965610

Colour

Grey

Dimensions

Tile Valley Trough 360
Slate Valley Trough

3m long x 360mm wide x 1.1mm
3m long x 225mm wide x 1.1mm

Weight (per pack)

Tile 360
Slate

24kg
19kg

Packaging

Banded in packs of 10

Regulations

Fire tested to comply with BS476: Part 3 SAB and Part 7 Class 3

Performance

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°.

GRP Dry Valleys

provide a robust, durable and lightweight alternative to lead and zinc valleys.

Area of application

- Use on tile and slate pitched roofs
- 15° maximum Pitch Variance
- 17.5° minimum rafter pitch
- 60° maximum rafter pitch

Product features

- Cost effective alternative to lead
- Lightweight and flexible
- UV resistant
- Safe and easy to cut
- BBA certified - certificate no 12/4928



Material

UV stabilised Glass Reinforced Polyester

Product Codes

Dry Tile Valley Trough 70mm (for slate version)
Dry Tile Valley Trough 110mm (for tile version)

KR966000
KR966100

Colour

Grey

Dimensions

Tile Valley Trough 70mm & 110mm

3m long x 400mm wide x 1.1mm

Weight (per pack)

Dry Valley 70mm 25kg

Dry Valley 110mm 29kg

Packaging

Banded in packs of 10

Regulations

Fire tested to comply with BS476: Part 3 SAB and Part 7 Class 3

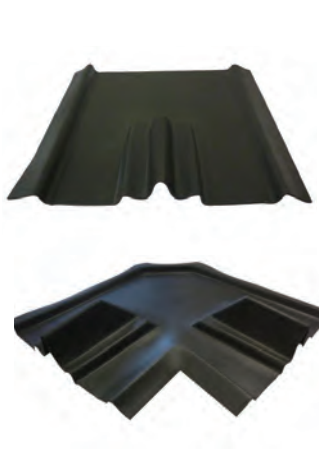
Performance

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°.

Related products

KR9660-1-0070 70mm Single Dry Valley Closure
KR9660-2-0070 70mm Double Dry Valley Closure
KR9661-1-0110 110mm Single Dry Valley Closure
KR9661-2-0110 110mm Double Dry Valley Closure

Please contact Sales Office for further information.



Dry Valley Closures

Area of application

- Head and foot of GRP valley troughs.

Product features

- Neat and clean professional finishing and flashing of dry fix valley troughs. Double closure provides a purpose made flashing for the junction of GRP valley troughs above dormer roofs with pitch differential to the main roof of up to 10 degrees. The eaves closure can be used at the eaves to fully close the gap beneath the peak of the valley trough. For dormers with pitch differential of over 10 degrees eaves closures can be used upslope, 1 to each valley trough.

Material

Polyurethane 65

Product Codes

KR9660-1-0070 70mm Single Dry Valley Closure
 KR9660-2-0070 70mm Double Dry Valley Closure
 KR9661-1-0110 110mm Single Dry Valley Closure
 KR9661-2-0110 110mm Double Dry Valley Closure

Colour

Dark matt grey

Dimensions

Packaging

None

Regulations

N/A

Performance

N/A



Please note cro clips are available to buy separately for secondary fixings



Eaves Closer

Simple to install method to protect against entry of birds vermin and debris, through gaps left by tile profiles at the eaves.

Area of application

- Eaves Closer - all types of roof tile and slates

Product features

- Lightweight and durable, fixing slots allow easy fixing
- Protects against entry of birds, vermin and debris
- Maintains low level air movement in the batten cavity and allows moisture run-off below the roof finish
- One-piece perimeter closer detail for counter batten roof systems

Material

Black PVC

Product Codes

30mm x 30mm x 2.5m
 30mm x 50mm x 2.5m
 30mm x 70mm x 2.5m
 30mm x 90mm x 2.5m

KP3030-1-0450-25
 KP3326-0450
 KP3070-1-0450-25
 KP3090-1-0450-25

Colour

Black only

Dimensions

2.5m lengths

Packaging

20 x 2.5 metre lengths per carton



Uni-Finials

Uni-Finials are designed to provide a quick and simple, neat, attractive and low-cost traditional finish to the roof line.

Area of application

- Concrete and clay ridge tiles
- A dry ridge system
- Universal angle or 1/2 round ridge tiles

Product features

- Traditional design complements both concrete and clay ridge tiles – cost effective alternative to clay or concrete finials
- Encapsulated, dry-fixing – compatible with most ridge systems
- Available in two colours

Material

UV protected medium density polyethylene

Product Codes

Tall Ball Finial
Universal Angle Base
Half Round Base

KR9961
KR9962
KR9963

Colour Codes

Slate Grey -30
Terracotta -34

Dimensions

Tall Ball – 325mm high (429mm including base)
Bases 104mm high, 235 wide

Packaging

5 pcs per carton (5 off)

Bird Deterrent

prevents birds from landing and nesting on structures. To protect surrounding area from fouling, damages and prevent possible slippery surfaces. Also avoids unsightly appearances.

Area of application

Suitable for:

- Window sills & ledges
- Signs
- Conservatories
- Security cameras
- Lights
- Edges of roofs

Product features

- Quick and easy to install – simply bend into shape and screw in place
- Highly weather resistant
- Flat-packed to save storage space and facilitate transport
- Rounded end to spikes makes them safe to handle and prevents birds from being injured
- Highly durable galvanised steel – suitable for window sills and ledges, signage, conservatories, security cameras, light fittings and edges of roofs

Material

Galvanised steel

Dimensions

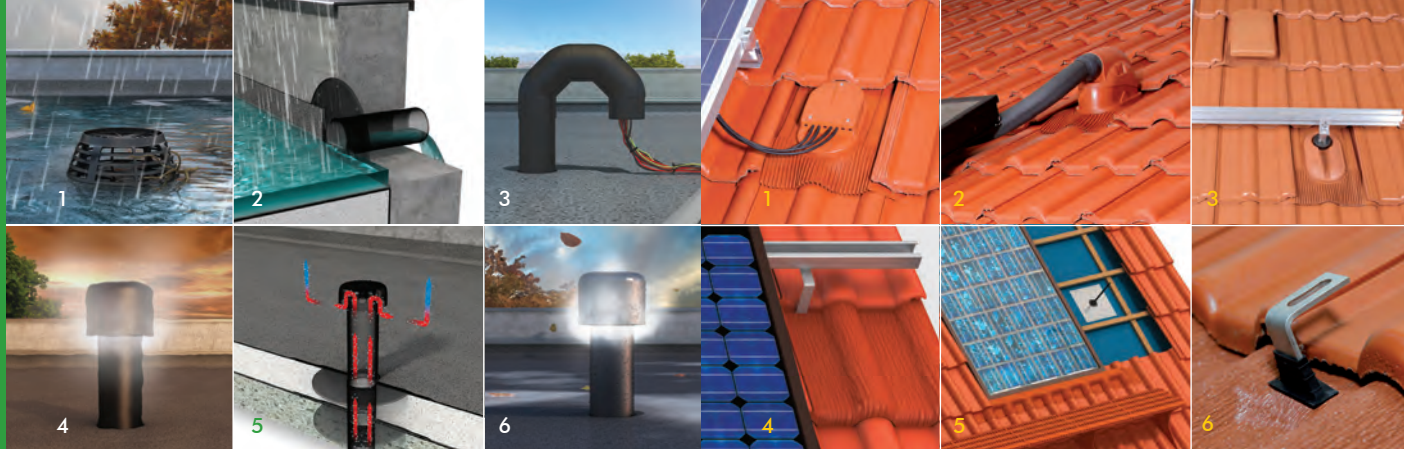
500mm long x 75mm high

Product Code

KB7781

Packaging

10 pieces per carton



FLAT ROOFING

Professional accessory solutions for flat roofs.

With modern roofing materials and weather-proofing membranes of bitumen and plastic, flat roofs can be built secure in their functions for a long period of use. For this the fitting accessories play an important part. Roofs must be ventilated depending on their construction, water must be removed and necessary penetrations through the functional layers such as antenna cables, photovoltaic systems or solar thermal pipes must be integrated in a waterproof way.

1./2. Drainage of roof, parapet and balcony

All flat roofs need optimum drainage. Standing water can lead to considerably damage. Should the water not be able to run off completely because of defective flat roof drainage, long-term damage threatens the sub-construction, which can even result in total damage through mould or moisture.

3. Roof Outlets for Power Cables

Roof Outlets for Power Cables make secure laying of pipes and cables of all kinds from the interior of a building to the exterior. They are also wind and weather-resistant, and because they are mounted uniformly on the roof no water can penetrate or adversely affect the existing flat roof waterproofing.

4. Breather vents

Since in every building which is used, moist air occurs this must be removed by suitable ventilation. Two-part, ventilated flat roofs allow this via ventilation slots in the wall or via roof space supply and exhaust vents. In this way condensing moisture and formation of mould are prevented and the functionality of the thermal insulation remains intact.

5./6. Room and soil ventilation

Fresh air in the house keeps one healthy. In badly ventilated, highly thermally insulated rooms it can become not only stuffy but also damp. Kitchens and bathrooms, and also normal building use, therefore require suitable supply and exhaust ventilation. Through continuous ventilation, mould, mites and the rest have no chance.

SOLAR-LINE

Professional accessory solutions for solar panel installations.

1. Venduct® Solar Cable Outlet Kit

- Allows PV panel cables to pass through the roof
- Retains watertightness of roof covering
- Use with Sealing Collar to create airtight seal
- Available in 3 colours to blend in with roof
- Suitable for the majority of roof tiles and slates

2. Venduct® Solar Thermal Outlet Kit

- Allows thermal panel pipes to pass through the roof
- Retains watertightness of roof covering
- Use with Sealing Collar to create airtight seal
- Available in 2 colours to blend in with roof
- Suitable for the majority of roof tiles and slates

3. Venduct® Solar Panel Support

- Avoids the maintenance costs of tile breakages
- Watertight unlike many traditional metal hooks
- Adapters allow use with numerous PV rail systems
- Variable bracket position independent of rafters
- Universal base allows use with most tile profiles

4. Easy-Form® Tile Guard Flashing

- When used under traditional metal hook supports, helps reduce the risk of expensive maintenance should a tile break
- Available in 4 colours to blend in with the roof
- Universal – suitable for all tile and slate profiles

5. Easy-Form® Solar Panel Apron Flashing

- Seals PV and solar thermal systems to roof covering
- Universal – suits all tile and slate profiles
- Creates a water and windtight seal
- 60% stretchable
- Available in 4 colours to blend in with the roof

6. Easy-Form® Solar Sealing Collar

- Prevents the ingress of water under the roof covering
- Applicable for roof pitches 10° and over

Call Sales Office to request for SOLAR-LINE Brochure.



Haus Profi™

The specialists in lead-free applications

Haus Profi is a brand of Klobber Limited

Haus Profi products are designed for sealing abutments and pitch transitions on walls, dormers, chimneys, flat roof upstands and hanging slates/cills. They are also ideal for a wide range of applications – from sealing gas and wood burning appliance flues through to both pitched and flat roofs.

1. Wakaflex

Wakaflex is a lead free, flexible, adhesive flashing designed to replace lead in most modern roofing applications.

2. EasyFlash

EasyFlash is a lightweight, universal lead-free roof flashing for the sealing of abutments between walls and roof tiles.

3. Gas Flue Outlet

Sabetoflex provides the perfect collar and flashing combination for gas flues with diameters ranging from 100-160mm.

4. Wood Connector Outlet

Sabetoflex provides the perfect collar and flashing combination for wood burner flues with diameters ranging from 250mm to 270mm

5. Haus Profi Accessories

- M-GLUE Adhesive
- HP Flashing Sealant
- Easyflash tape
- HP Flashing Roller

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Wakaflex

EasyFlash

Gas Flue Outlet

Wood Connector Outlet

Haus Profi Accessories

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