CI/SfB (57.5)
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ubbink BUILDING SOLUTIONS

Ubiflex non-lead flashing system

For *all* traditional lead applications

BBA APPROVAL INSPECTION TESTING CERTIFICATION
TECHNICAL APPROVALS FOR CONSTRUCTION
CERTIFICATE No. 08/4577

ubbink

Contents

Ubiflex is now available in two types:

- Ubiflex B2
- Ubiflex B3

Original Ubiflex has become Ubiflex B3 and a new, lighter version - Ubiflex B2 - has been introduced to the range.

The application selector opposite shows where Ubiflex B2 and Ubiflex B3 can be used in specific applications.

Ubiflex non-lead flashing

Ubiflex is a non-lead waterproof flashing material which can be used in all applications where lead is traditionally used to provide a weatherproof junction at features such as changes of direction and materials. Ubiflex can also be used to form damp proof courses and cavity trays in masonry walls.

Ubiflex is manufactured by coating both sides of an aluminium mesh reinforcement with a mixture of modified bitumen and additives. The underside of the product is finished with a kraft paper and film backing.

Colour granules are added to the surface, the material cooled and rolled into the required lengths.

Applications

	Ubiflex B2	Ubiflex B3
Soakers	✓	
Sharp corners		✓
Valley gutters	✓	✓
Cover flashings	✓	✓
Window flashings	✓	
Door flashings	✓	
Step flashings	✓	✓
Rooflight flashings	✓	✓
Conservatory flashings	✓	✓
DPC & cavity tray in masonry walls		✓
BBA Certificate		✓

The Ubiflex System - setting new standards in flashings

Ubiflex has countless advantages over traditional lead for all the applications listed on page 2. All these advantages add up to make Ubiflex an indispensable addition to all projects.

Ubiflex is:

- 80% lighter than lead - giving handling, structural and health and safety advantages.
- up to 50% quicker to install than lead, is fully malleable, can be worked in both directions and is self-sealing if punctured.
- not susceptible to thermal movement. Aprons up to 12m long can be formed without seams or expansion joints - 8 times longer than traditional lead sheet. Consequently, there is less wastage with Ubiflex.
- compatible with all common building materials and components, such as thermal panels, extract flues, ventilators, rooflights and flat roofing membranes including PVC single ply.
- a tough, flexible, impermeable membrane which is also ideal for use as a DPC or cavity tray. It has excellent resistance to sliding under lateral loading and can withstand usual building settlement.
- stable and does not cause any unsightly staining.
- worked the same way as lead flashing but without the need for protective measures. It can be cut with a sharp knife or snips.
- only of value to the installer; it has no re-sale value as scrap.
- environmentally friendly, non-toxic and recyclable.
- wind tunnel testing at BRE demonstrated that Ubiflex will resist wind speeds of 110mph.
- covered by a BBA Certificate for general use. It is also accepted by the NHBC and Zurich Insurance.

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Performance

Composition:	Modified polyethin compound with an aluminium mesh reinforcement
Temp resistance:	-30°C to +90°C
Min. working temp:	By hand: -10°C With hammer: +5°C Use warmed material for improved malleability at low temperatures
Corrosion:	Resistant to corrosion
Wind stability:	BRE wind tunnel tested to 110mph
Life expectancy:	30 years Tested to methods of artificial ageing by long term exposure to UV (A & B) radiation, elevated temperature and water. Individually and in combinations of two and all three elements.
Guarantee:	15 years - Ubiflex B2; 25 years - Ubiflex B3
Surface treatment:	Textured surface resists staining

Technical Description

Roll widths and weights	Ubiflex B2	Ubiflex B3
150mm x 12m	4.0kg	7.2kg
200mm x 12m	5.3kg	9.6kg
250mm x 12m	6.6kg	12.0kg
300mm x 12m	8.0kg	14.4kg
400mm x 12m	10.6kg	19.2kg
450mm x 12m	-	21.6kg
500mm x 6m	-	12.0kg
600mm x 6m	-	14.4kg
1000mm x 6m	-	24.0kg
Thickness:	2.3mm	3.5mm

Topside colour:

Black

Grey

Terracotta

Design guidance

General

When designed and installed in accordance with the relevant parts of BS 5534:2003, BS 6229:2003 and BS 8000-6:1990, Ubiflex is suitable for use in flashing applications, such as abutments, chimneys, saddles, valleys and dormers to provide a weatherproof junction.

Unlike lead, Ubiflex can be used for long runs of up to 12m when used as a DPC or a cavity tray in masonry walls. In addition, Ubiflex is resistant to the corrosion which affects lead when portland cement containing free lime comes in contact with moisture so there is no need for additional paint protection. Ubiflex has excellent resistance to sliding under lateral loading and can withstand usual building settlement.

Cutting and folding can be carried out to a minimum temperature of 10˚C and when working with a lead dresser to a minimum temperature of 5˚C.

Foot traffic should be avoided or a protection board should be used when installing the product as a valley lining.

For instances where a lead wedge would normally be used, Ubbink have created a quick to install 'V' shaped fixing clip. Theses clips should be pushed into mortar joints at spacings of 450mm or less (see figure 01).

Overlap joints of 150mm are required in all flashings and must be sealed with Ubiflex High-Tack.

Ubiflex flashings should be sealed to tiles, slates, glazing, upstands and soakers using a spot or continuous bead of High-Tack.

BRE wind tunnel test

Recent wind tunnel testing at BRE on a Ubiflex flashing surrounding a chimney and sealed with Ubiflex Gap-Seal demonstrated that the flashing will resist wind speeds of at least 49m/s (110mph) without failing (see photograph on page 08).

Copies of the BRE wind tunnel test, BBA Certificate, installation instructions and health & safety data sheets are available from Ubbink or as pdf's from our website - **www.ubbink.co.uk**

The Ubiflex system

1. Ubiflex non-lead flashing
2. Ubbink High-Tack sealant: *for sealing down to tiles, slates & overlap joints*
3. Ubiflex Gap-Seal sealant: *for sealing mortar joints*
4. Ubiflex fixing clips: *for easier fixing in mortar joints*
5. Ubiflex 'no lead' sign: *to reduce theft from site*

Fixing Ubiflex into a wall or chimney

Without a DPC

On upstands, parapets, chimneys and walls without a damp proof course (DPC), Ubiflex should be turned into a joint or chase by not less than 30mm. Ubiflex should then be held in place with Ubiflex fixing clips, spaced not more than 450mm apart and then the joint filled with Ubiflex Gap-Seal (figure 01).

Ubiflex Gap-Seal has been designed to resist the cracking associated with mortar and protect the joints from water penetration.


figure 01

With a DPC

When installing Ubiflex in a joint which includes a pre-fitted DPC, the mortar should be removed to a depth of not less than 30mm below the DPC, Ubiflex fitted and the joint sealed with Ubiflex Gap-Seal (figure 02).


figure 02

If the DPC and Ubiflex are installed at the same time, the Ubiflex should be fitted to a depth of not less than 50mm with the edge turned back into a single welt to anchor it into the mortar (figure 03). This method is particularly recommended when the height of masonry above the DPC is less than 600mm as there is a risk of the masonry lifting when clipping Ubiflex.

Larger joints

Ubiflex can also be used in situations where the joint width is large or uneven, for example, in masonry in old or historic buildings. In these instances Ubiflex should be turned up the back of the chase and mechanically fixed with the joint filled with Ubiflex Gap-Seal.


figure 03

Unlike lead, there is no need for a masking tape liner over Ubiflex when using mortar to fill shallow and wide joints.

Flashing to a flat roof upstand

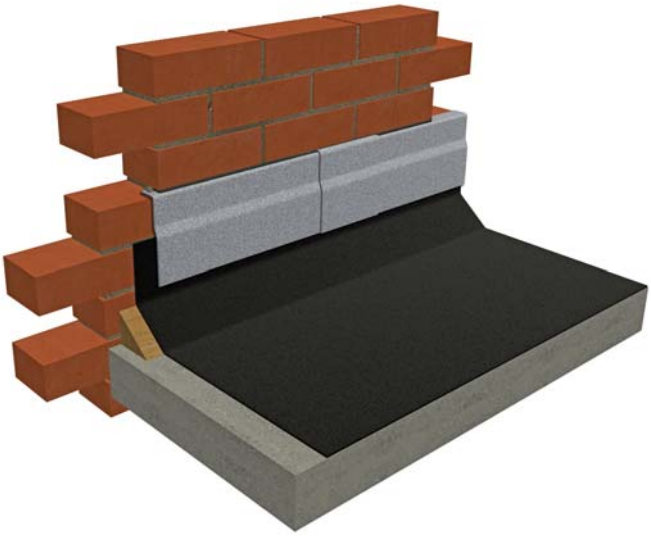
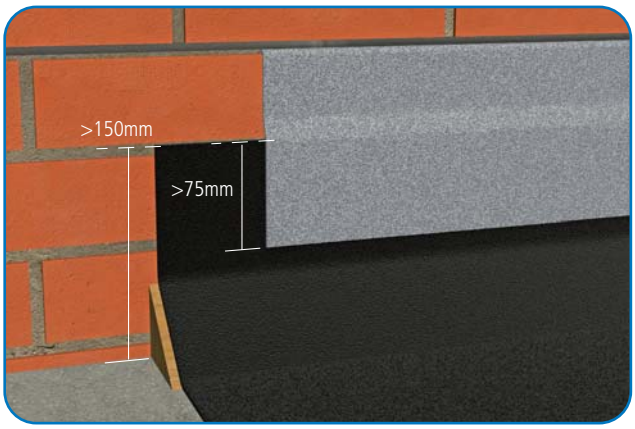


Figure 04: flashing to flat roof upstand

Ubiflex should cover the upstand by at least 75mm and be sealed to it with a continuous bead of High-Tack sealant. (figure 04).

The height of the upstand should be at least 150mm.



Flashing to a wall or chimney: side abutment - double lap tiles/slates

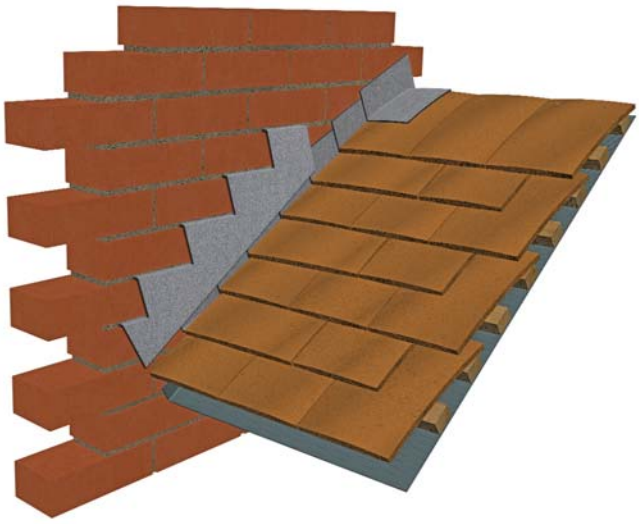
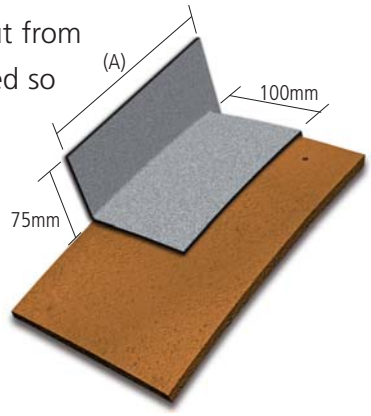


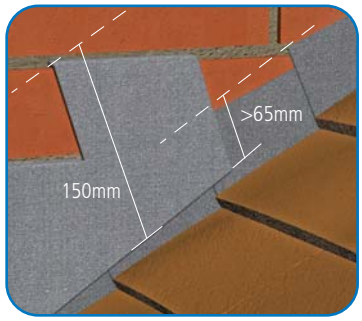
Figure 05: flashing to a side abutment - double lap tiles/slates

Where double lap tiles or slates abut a wall they should be covered with Ubiflex B2 and a Ubiflex B3 stepped cover flashing (figure 05).



Soakers should be cut from Ubiflex B2 and shaped so they run 75mm up the wall, cover the width of the tile or slate by 100mm and the length of the tile or slate by a distance equal to gauge + lap + 25mm (dim A), with the extra 25mm being the amount of Ubiflex turned down over the top of the tile or slate.

The Ubiflex B3 stepped flashing should be 150mm wide, cover the soakers by not less than 65mm and be sealed with a continuous bead of Ubiflex High-Tack.



Flashing to a wall or chimney: side abutment - single lap tiles

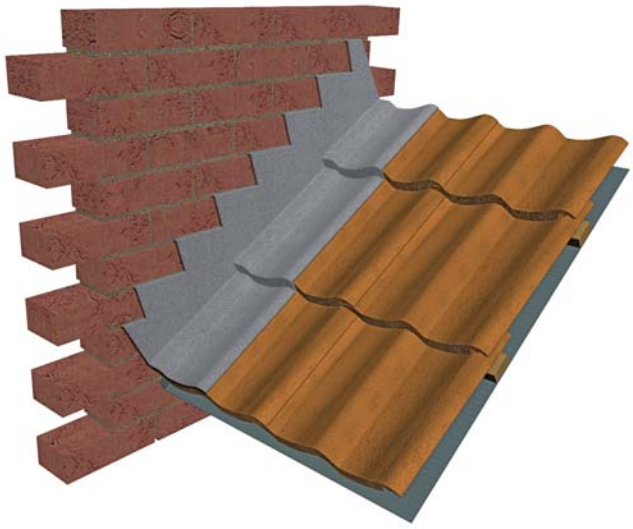


Figure 06: flashing to a side abutment - single lap tiles

For single lap tiles a continuous Ubiflex cover flashing can be used (figure 06).

This flashing should go up the wall 150mm (as double lap) and cover the tiles by at least 150mm (200mm for deep profiles or pitches below 25˚ in exposed areas) and be sealed with a continuous bead of Ubiflex High-Tack.

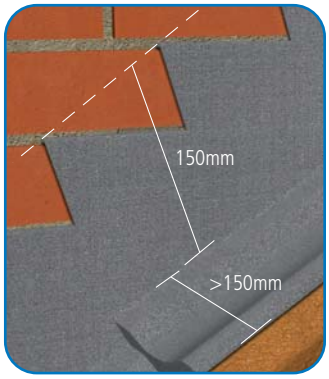
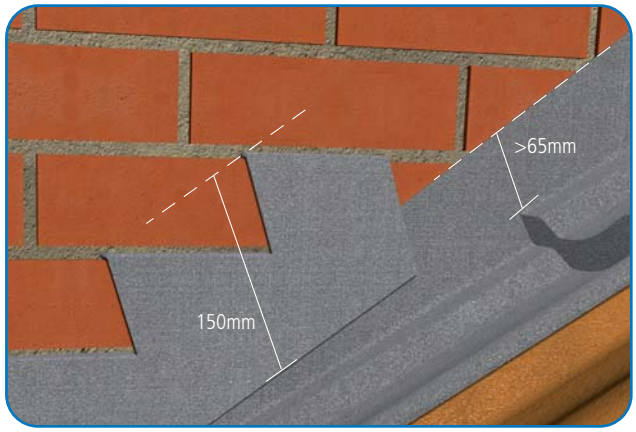


Figure 07: flashing to a side abutment - single lap tiles

Alternatively, single lap tiles can be weatherproofed at abutments by using a cover flashing and a separate stepped flashing (figure 07). As in double lapped tiles, the cover flashing should run 75mm up the wall and the stepped flashing should be 150mm wide and overlap the cover flashing by 65mm.



The stepped flashing should be sealed to the cover flashing with a continuous bead of Ubiflex High-Tack.

Flashing to a wall or chimney: top abutment - over tiles

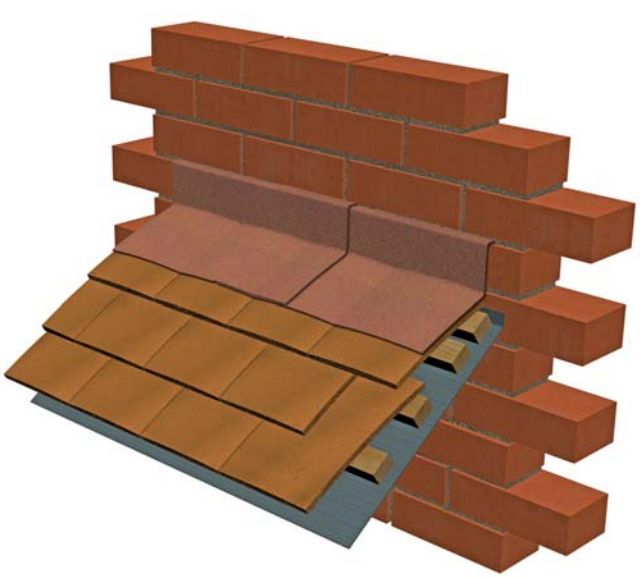
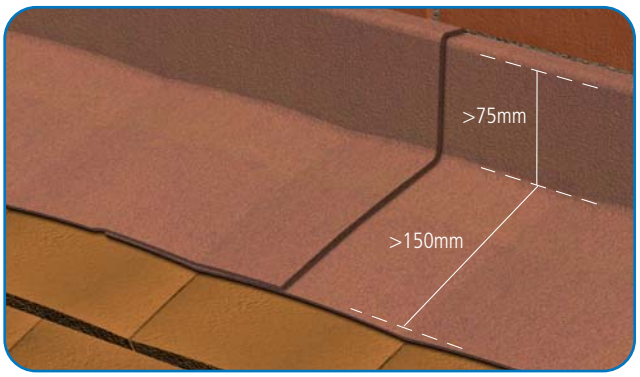


Figure 08: flashing to a top abutment - tiles and slates

When flashing a lean-to-roof or chimney in a pitched roof the Ubiflex should be turned up no less than 75mm and extend down the slope at least 150mm (200mm for pitches below 25˚ or exposed areas) and sealed to the roof covering (see figure 08 and below).



At the junction of chimney and ridge, a separate saddle flashing is required. This flashing should extend down both sides of the roof by not less than 150mm and along the ridge by not less than 150mm. The flashing edge which is beneath the ridge tile should be turned back to form a welted weather check (see also figure 10).

Flashing to a wall or chimney: top abutment - patent glazing

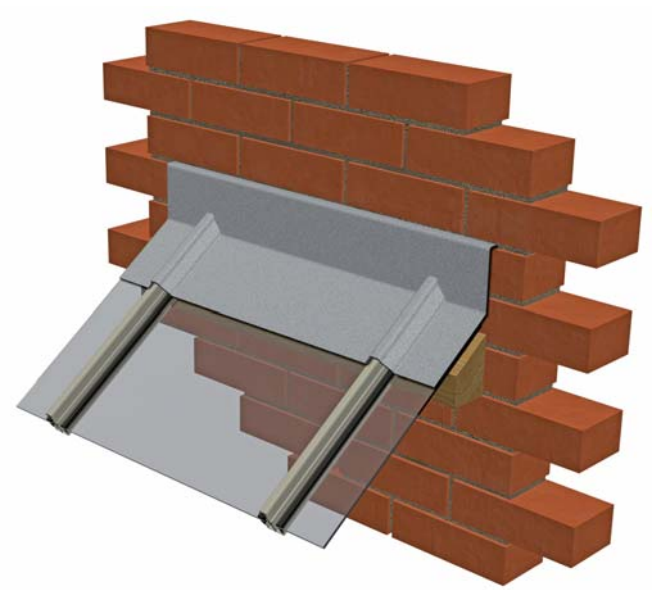


Figure 09: flashing to a top abutment - patent glazing

Ubiflex is ideal for flashing over patent glazing providing the glazing bars are not too deeply profiled (figure 09).

Ubiflex should be turned up no less than 75mm and extend down the slope at least 150mm (200mm for pitches below 25˚ or exposed areas) and sealed to the glazing with Ubiflex High-Tack.

Photograph taken at BRE immediately after 49m/s (110mph) wind tunnel test

Flashing to vertical tile and slate hanging

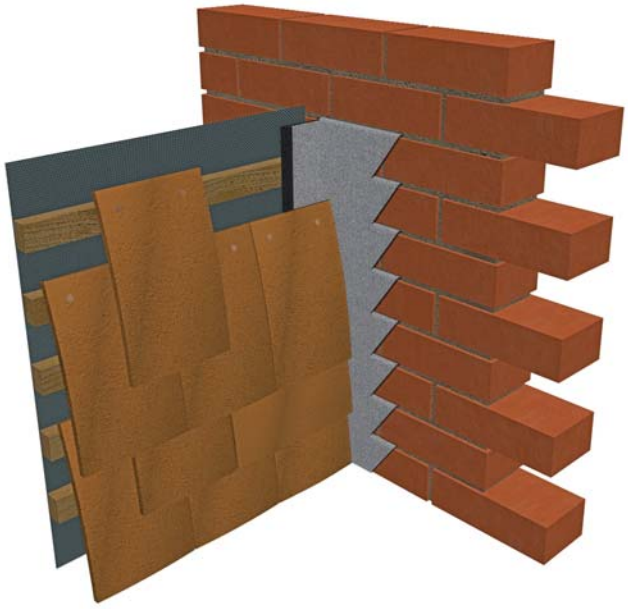
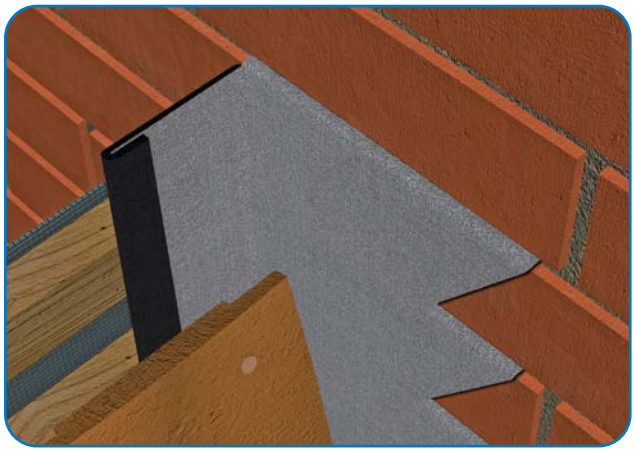


Figure 10: flashing to vertical tile or slate hanging - side abutment

Ubiflex should be taken behind tiles by not less than 75mm and finished with a single weathercheck welt (figure 10 and below).



In slate hanging the Ubiflex extends 100mm behind the slates without the welt.

Alternatively, soakers and a cover flashing can also be used in this instance and should follow the same procedure as shown in figure 05 (see page 06).

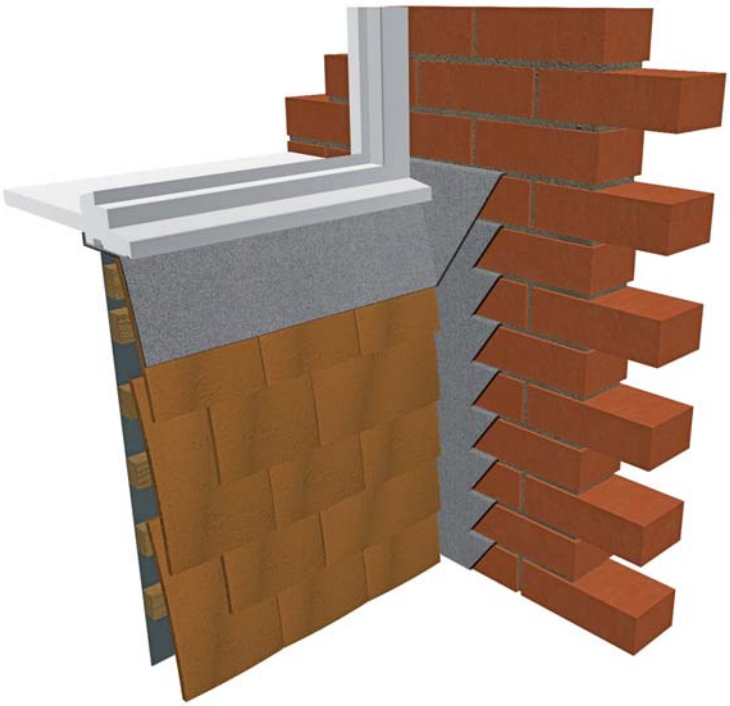


Figure 11: flashing to vertical tile or slate hanging - cills

At the junction of the tiles/wall/cill, a separate cill flashing is required. This cill flashing extends up the wall at least 75mm and is chased into the brickwork minimum one course above the tiles or slates flashing (figure 11).

Where the window opening appears within the body of the tile hanging, a similar cill flashing is required. This cill flashing turns under the cill and extends past the vertical edge of the window by at least 100mm and up the jamb by at least 100mm from the underside of the cill.

Pitched valley lining

Ubiflex is suitable for use in a valley gutter with all types of roof covering and boarded, battened and counterbattened roofs (Figure 12).

Ubiflex extends across valley boards, over the fillets (the tops of which should be level with the top of the tiling battens) and is then fixed to the boards behind the fillet.

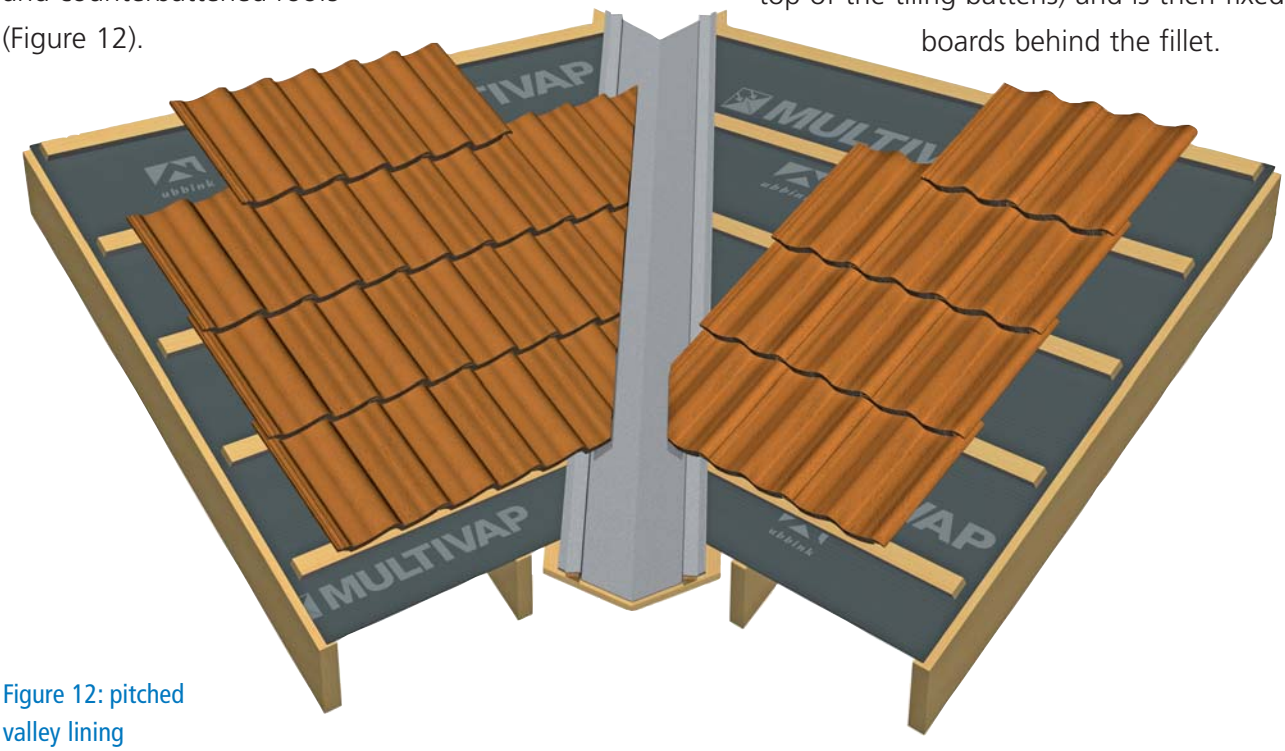
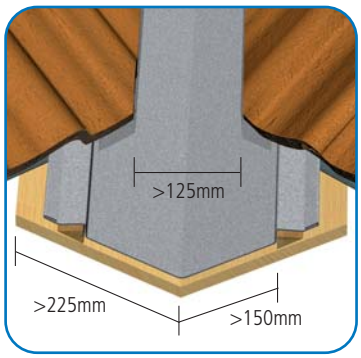


Figure 12: pitched valley lining

Ubiflex is then welted to protect the fixings and provide a weathercheck.

Cut edges of single lap tiles should be bedded on the Ubiflex with a clear water channel left behind the mortar bedding and the tilting fillet; double lapped tiles/slates are laid dry. Foot traffic should be avoided or a protection board should be used during installation.

Ubiflex sits directly on the valley boards - these should extend at least 225mm each side of the centre of the valley and include tilting fillets positioned 150mm each side of the centre.



When the tiles/slates are laid the gap between then should not be less than 125mm.

Valley boards (not less than 19mm thick) are laid on top of the rafters in boarded and counterbattened roofs or fixed flush with the top of the rafters in battened roofs - either notched into the rafters or fixed to noggins (trussed rafters).

Flashing to rooflights, northlights and solar panels

Most new, modern skylights and solar panels are supplied with built-in flashings. However, where this is not the case or flashings to existing skylights and solar panels need to be replaced, then Ubiflex should be formed up and over the upstand and extend 150 - 200mm into the roof covering. Flashings should be positioned beneath plain tiles and slates (top and sides) and over profiled tiles.

Design guidance

Northlights are flashed by dressing the Ubiflex over the ridge and shaping over the glazing bars as in figure 09. Ubiflex should extend 150 - 200mm down each side of the slope and be sealed to the glazing with a continuous bead of Ubiflex High-Tack.

Flashing to canopies, hoods and carports

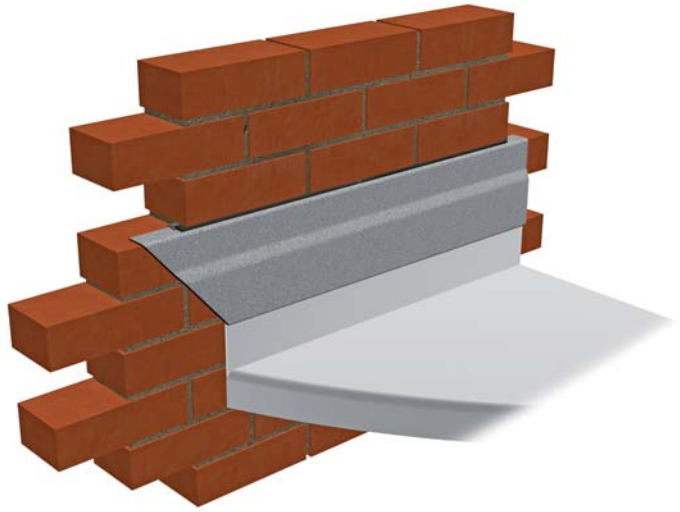


Figure 13: flashing to canopies, hoods and carports with upstands

Ubiflex can be used as a flashing to modern fibreglass, GRP and plastic door/window/patio canopies, door hoods and carports. For canopies and hoods with upstands follow the procedure as shown in figure 13, ensuring the flashing is sealed to the canopy etc. and covers the upstand by at least 75mm and extends at least 100mm beyond the sides.

For canopies and carports without upstands the procedure is similar to the top abutment flashing shown in figure 08 (see page 08) ensuring that the flashing is sealed to the canopy or carport and extends and at least 150mm over the canopy and 100mm beyond the sides.

Sitework

Supply, handling and storage

Ubiflex rolls are supplied packed individually in boxes and should be stored in a dry area.

No special handling is required during storage or installation. Ubiflex is non-toxic and recyclable.

Installation

Ubiflex can be worked in the same way as lead, but without the need for any protective measures.

Ubiflex can also be used in direct contact with any building material, including copper, zinc, iron, aluminium and stainless steel, in all climate conditions and environments.

Ubiflex:

- Can be cut with a sharp knife
- Can be fixed with stainless steel nails if required
- Can be joined with Ubiflex High-Tack sealant to form a watertight joint

Maintenance and repair

Ubiflex is self-sealing if punctured.

Ubiflex does not require any maintenance in addition to a regular visual check for damage.

Flashing to a Northlight

It won't cost the earth

Ubbink is committed to sustainability: not only are our products designed to provide solutions which are environmentally friendly and energy efficient, but we are focussed on reducing the environmental impact of every part of our business. We select our materials meticulously, employ energy efficient manufacturing processes and work to reduce waste and carbon emissions.

The Ubbink Range

• Non-lead flashing • Eaves and ridge ventilation • Flat roof vents • Tile and slate vents
• Breather membranes • Non-permeable underlays • Vapour control layers
• Heat reflecting membranes • Flat roof windows • Dry verge • Pitched and flat roof terminals
• Whole house ventilation • Heat recovery systems • Heating flue systems • Insulation trays
• Tubular skylights • Valley troughs • Loft hatches • Sealants

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