


FILON Flat roofing

The complete fibreglass roof kit
from the leader in GRP building materials

- 
- Maintenance free GRP construction
 - Cost-effective and durable
 - Easy to fix - no special tools or fixings
 - High performance designs
 - Long life expectancy
 - Manufacture assured to ISO 9001:2000

FILON[®]

FILON Flat roofing

Durable, practical roofing for pitches up to 10 degrees

Filon products Limited has been manufacturing GRP products for over 50 years — and many of our early roofing and rooflight installations are still giving good service.

GRP is widely used in many diverse applications such as boats, lorry and car bodies, water tanks, ponds and pools as well as rooflights. Used correctly, it will provide the end user with an excellent product with a life span well in excess of 20 years.

GRP has been utilised in industrial and domestic roofing applications for many years. The longevity and durability of GRP, together with minimal maintenance requirements, provide extremely competitive lifetime costs.

GRP flat roofing is ideal for projects of any size or complexity.

Vents, skylights and pipes can all be weather-proofed and

incorporated into the substrate with ease. Preformed fascia trims in GRP or uPVC can be adapted to suit most applications.

GRP is sufficiently durable to withstand foot traffic and is ideal for use on walkways and patios. A non-slip finish can be incorporated if required.

The Filon GRP system can be installed on to new decking, or a preformed GRP decking board. The system is easy to install. However, we advise that you should consult either ourselves or GRP roofing guides before installation.

Generally, depending on temperature, the roof should be cured within 30 minutes to one hour and will be completely cured within a day or two.

GRP Roofing resin and accessories

<i>Product</i>	<i>Code no</i>	<i>Product</i>	<i>Code no</i>
<i>Standard Base Resin 20kg</i>	<i>FRBASE</i>	<i>100mm brush</i>	<i>FRBRU1000</i>
<i>Standard Resin Topcoat 20kg Grey</i>	<i>FRTC GREY</i>	<i>Acetone (Brush cleaner) 25 litre</i>	<i>FRCONACE25</i>
<i>Standard Resin Topcoat 20kg White</i>	<i>FRTC WHITE</i>	<i>Acetone (Brush cleaner) 5 litre</i>	<i>FRCONACE5</i>
<i>450g Chop Strand Mat 75mm x approx 70m</i>	<i>FRCSM45075</i>	<i>Zebra roller Handle-4"-100mm</i>	<i>FRZEBROLH100</i>
<i>Chop Strand Mat 600g Roll (approx 33Kg)</i>	<i>FRCSM45073</i>	<i>Zebra 4" Extension handle</i>	<i>FRZEBEXTH100</i>
<i>Chop Strand Mat 450g Roll (approx 33Kg)</i>	<i>FRCSM60055</i>	<i>Zebra roller Handle-6"-150mm</i>	<i>FRZEBROLH150</i>
<i>Chop Strand Mat 600g 10m² Roll (approx)</i>	<i>FRCSM60010</i>	<i>Zebra roller Handle-7"-175mm</i>	<i>FRZEBROLH175</i>
<i>Chop Strand Mat 600g 5m² Roll (approx)</i>	<i>FRCSM6005</i>	<i>Zebra roller Refill 4" 100mm</i>	<i>FRZEBROLR100</i>
<i>Catalyst Standard 5kg</i>	<i>FRCATSTD</i>	<i>Zebra roller Refill 6" 150mm</i>	<i>FRZEBROLR150</i>
<i>Catalyst Fast 5kg</i>	<i>FRCATFAST</i>	<i>Zebra roller Refill 7" 175mm</i>	<i>FRZEBROLR175</i>
<i>Catalyst Slow 5kg</i>	<i>FRCATSLOW</i>	<i>Mohair roller-push on-Refill 6" (150mm)</i>	<i>FRMOHROLR150</i>
<i>Catalyst dispenser 80ml</i>	<i>FRCDIS80</i>	<i>Paddle Roller 15 x 100</i>	<i>FRPADROL15100</i>
<i>Catalyst dispenser 15ml</i>	<i>FRCDIS15</i>	<i>Paddle Roller 15 x 50</i>	<i>FRPADROL1550</i>
<i>Latex gloves LARGE box 100</i>	<i>FRLATGLO100</i>	<i>Paddle Roller 22 x 150</i>	<i>FRPADROL22150</i>
<i>Latex gloves LARGE case of 10 boxes x 100</i>	<i>FRLATGLO1000</i>	<i>Paddle Roller 22 x 230</i>	<i>FRPADROL22230</i>
<i>PU Sealer bonder - 310ml</i>	<i>FRPUBON310</i>	<i>Paddle Roller 22 x 75</i>	<i>FRPADROL2275</i>
<i>12.5mm brush</i>	<i>FRBRU125</i>	<i>Paddle Roller 40 x 225</i>	<i>FRPADROL40225</i>
<i>25mm brush</i>	<i>FRBRU250</i>	<i>1 Litre Bucket</i>	<i>FRBUCK1000</i>
<i>37.5mm brush</i>	<i>FRBRU375</i>	<i>2.5 Litre Bucket</i>	<i>FRBUCK2500</i>
<i>50mm brush</i>	<i>FRBRU500</i>	<i>5 Litre Bucket</i>	<i>FRBUCK5000</i>
<i>75mm brush</i>	<i>FRBRU750</i>	<i>10 Litre Bucket</i>	<i>FRBUCK10000</i>
		<i>12.5 Litre Bucket</i>	<i>FRBUCK12500</i>
		<i>20 Litre Bucket</i>	<i>FRBUCK20000</i>

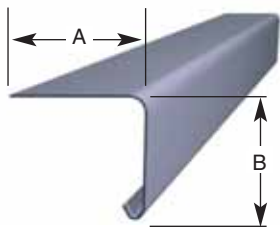
GRP roofing components

Drip Trim FT200

Used at the intersection of the roof and fascia boarding where water drains into an existing gutter/channel.

Dimensions

Width A: 95mm Depth B: 90mm
Supplied in 3m lengths

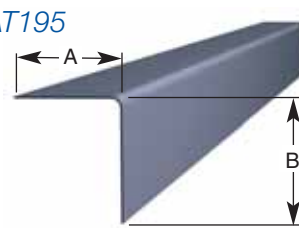


External Angle Trim EAT195

Can be used on a 90° external angle in a variety of situations.

Dimensions

Width A: 85mm Depth B: 105mm
Supplied in 3m lengths

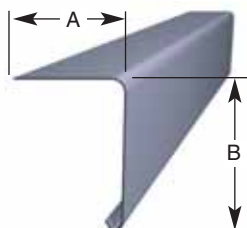


Drip Trim FT250

Used at the intersection of the roof and fascia boarding where water drains into an existing gutter/channel.

Dimensions

Width A: 95mm Depth B: 150mm
Supplied in 3m lengths

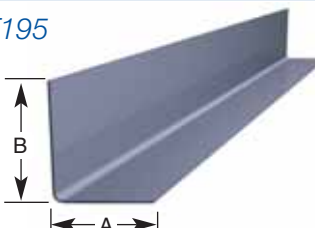


Internal Angle Trim IAT195

Can be used to form a 90° angle against an abutment or other upstands on a roof.

Dimensions

Width A: 85mm Depth B: 105mm
Supplied in 3m lengths

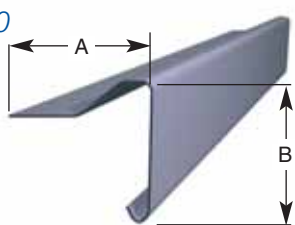


Watercheck Trim RET230

Used at the junction of the roof and fascia to stop water run-off.

Dimensions

Width A: 105mm Depth B: 105mm
Supplied in 3m lengths



Flat Flashing FF300/FF1200

Flat GRP sheet which can be used under slates that discharge onto a roof or as a base sheet.

Dimensions

FF300: 300mm x 2400mm
FF1200: 1200mm x 2400mm

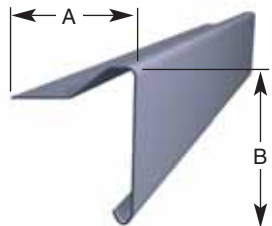


Watercheck Trim RET260

Used at the junction of the roof and fascia to stop water run-off.

Dimensions

Width A: 105mm Depth B: 122.5mm
Supplied in 3m lengths

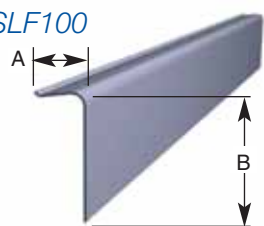


Simulated Lead Flashing SLF100

For use as a cover flashing fixed into a wall.

Dimensions

Width A: 40mm Depth B: 100mm
Supplied in 3m lengths

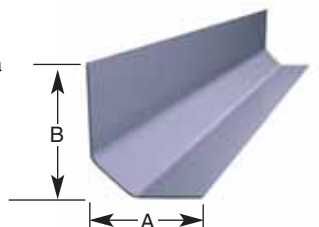


Wall Fillet WF200

Used against an upstand area of a roof to form a fillet onto the roof.

Dimensions

Width A: 117.4mm
Depth B: 117.4mm
Supplied in 3m lengths



Expansion Joint EJ280

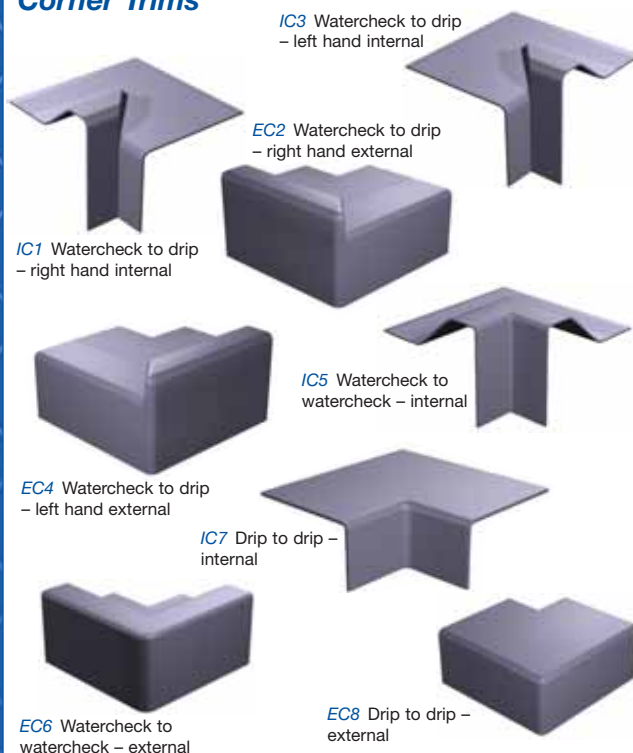
Allows for expansion and simulates the appearance of raised rolled lead joints.

Dimensions

Supplied in 3m lengths



Corner Trims



Tecnaflex Flat sheets

FR13501ARB220 3m² sheets (1.83)
FR13501ERB220 3m² sheets (2.20)
FR12201ARB244 3m² sheets (1.83)
FR12201ERB244 3m² sheets (2.20)



The uPVC trims you can use with GRP roofing!

Fast, easy bonding to GRP

Flex-trim components feature a unique bonding strip which locks in with the set laminate to provide a permanent bond.

No need to top coat

With Flex-trim, no top coat is required and cellophane masking strips provide convenient overpaint protection.

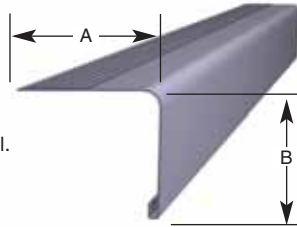
Drip Trim

PVCDT100G (grey)
PVCDT100W (white)

Used at the intersection of the roof and fascia boarding where water drains into an existing gutter/channel.

Dimensions

Width A: 90mm Depth B: 100mm
Supplied in 3m lengths



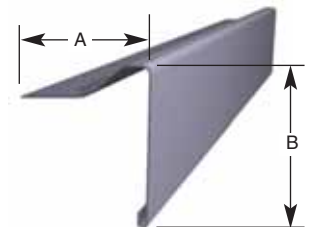
Raised Edge Trim

PVCRET130G (grey)
PVCRET130W (white)

Used at the junction of the roof and fascia to stop water run-off.

Dimensions

Width A: 90mm Depth B: 130mm
Supplied in 3m lengths



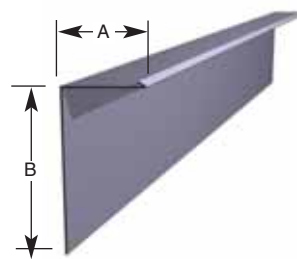
Simulated Lead Trim

PVCSLT100G (grey)

For use as a cover flashing fixed into a wall.

Dimensions

Width A: 35mm Depth B: 100mm
Supplied in 3m lengths



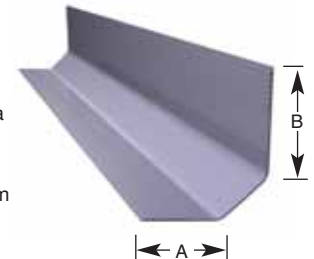
Fillet Trim

PVCFT120G (grey)
PVCFT 120W (white)

Used against an upstand area of a roof to form a fillet onto the roof.

Dimensions

Width A: 120mm Depth B: 140mm
Supplied in 3m lengths



Watercheck to drip RH external corner

PVCEC2G (grey) PVCEC2W (white)



Watercheck to drip LH external corner

PVCEC4G (grey) PVCEC4W (white)



Watercheck to watercheck RH external corner

PVCEC6G (grey) PVCEC6W (white)



Watercheck to drip RH internal corner

PVCIC1G (grey) PVCIC1W (white)



Watercheck to drip LH internal corner

PVCIC3G (grey) PVCIC3W (white)



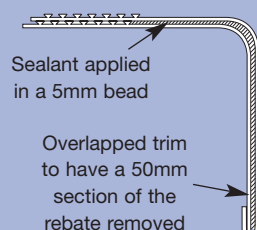
Watercheck to watercheck internal corner

PVCIC5G (grey) PVCIC5W (white)



Face Fixing Pins

PVCFFW (white heads)
PVCFFG (grey heads)

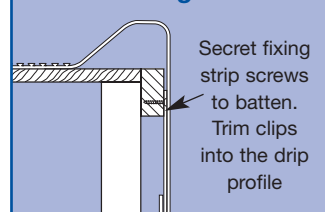


Secret Fixing Strip

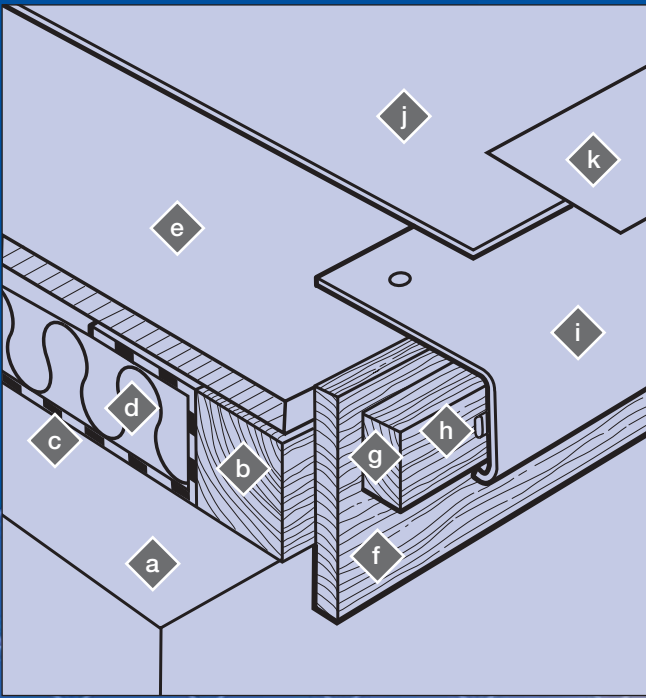
GRPSFS
1500mm x 60mm



Secret Fixing Detail



Typical drip trim edge detail – warm roof

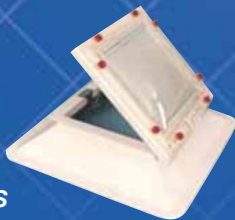


- a. Roof deck** – to be clean and in sound condition.
- b. Insulation stop** – treated timber batten fixed using anti-corrosive fixings at 300mm centres.
- c. Vapour control layer** – returning over insulation at edges and openings. Laps should be sealed.
- d. Insulation board** – fixed according to manufacturer's instructions.
- e. Proprietary roof decking** – 18mm OSB boards or Tecnaflex sheets as per specification requirements
- f. Fascia board**
- g. Timber batten** – treated timber batten fixed using anti-corrosive fixings at 400mm centres.
- h. Proprietary sealant** applied to the joint between the batten and trim, to its full length.
- i. Flexible edge trims.** These are nail or screw fixed at 500mm centres on the rear edge.
- j. GRP roof finish**



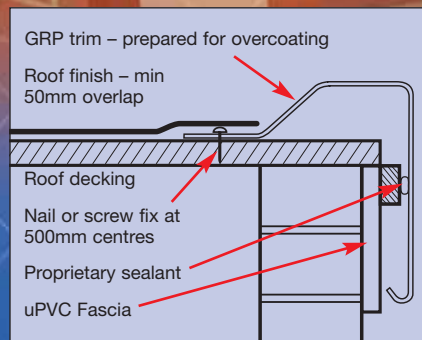
A typical domestic cold roof installation

1. Raised edge trim
2. Wall fillet
3. Simulated Lead Flashing
4. Drip Trim
5. Drip to Drip external corner trim
6. Roof deck
7. GRP roof covering

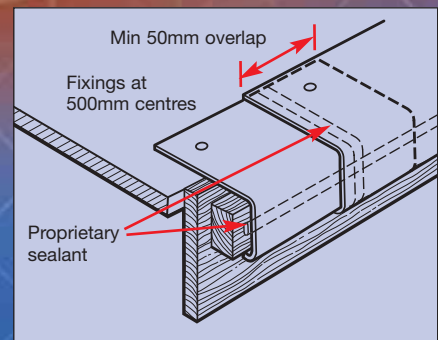


Rooflights

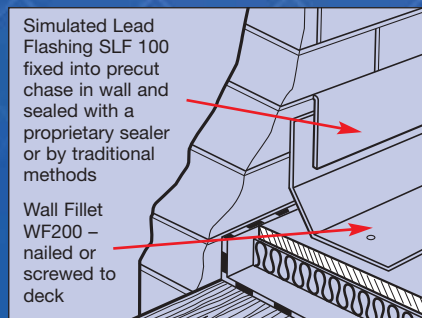
A full range polycarbonate Double or triple skin flat roof domes in either, square, rectangular, or circular configurations are available. Please contact us with your exact requirements for a quotation.



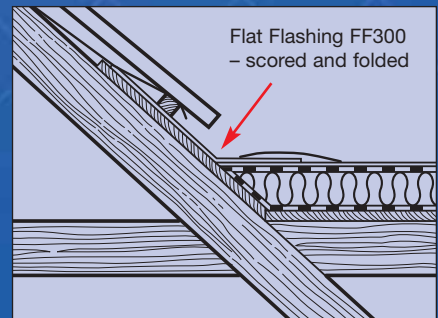
Cold roof detail



Trim jointing detail



Deck-to-wall detail – warm roof



Layboard detail – GRP roofs

Flat Roofing Technical Information

Durability

Approximate life expectancy under normal exposure conditions in Northern Europe is 25 years, but may remain structurally sound in excess of this period.

Working characteristics

Lightweight and shatterproof. Can be cut or drilled with normal hand or power tools.

Finishing

Flashings are supplied in Squirrel Grey finish, pre-prepared for overpainting with Sealoflex or polyester top coat resin. Other finishes can be applied, however, always carry out sample tests to ascertain suitability of adhesion and finish.

Handling and storage

Appropriate care must be taken at all times when handling, storing and installing GRP roofing system components. Care must be taken to avoid damage to edges of sheets and trims. All GRP components should be stored under cover in dry conditions where possible. When stored in open conditions, components should be kept clear of the ground on timber battens or pallets and protected by opaque, waterproof covers.

Specification and application

GRP components can be specified for warm or cold roof constructions in new build or refurbishment projects. They are suitable for use with all types of roof construction, provided that the roof is able to accept appropriate adhesives or fixings. The relevant components have been tested in accordance with BS 2782 for GRP.

Sealants

If in doubt, always seek advice as to the correct sealant for use with GRP flashings.

Effects of chemicals

Certain acids, alkalis and solutions of water soluble gases may attack GRP sheets and fixings. Where such conditions occur please contact your supplier.

Liquids

Water absorption: 50mg after 7 days (BS2782: Part 4, Method 430A: 1983)

Biological

Resistant to attack by micro-organisms, fungi, larvae, insects and mildew. Wash with mild detergents to remove deposits.

Thermal properties

Thermal transmittance

'U' value is dependent upon roof construction.

Thermal movement

Coefficient of linear expansion:
22 x 10⁻⁶ m/m per °C.

Effects of sunlight

All polyester resins used in production of flat sheet and trims, as well as those used for laminating, are UV stabilised. Further protection is achieved by the application of a resin top coat.

Compatibility

No chemical reaction with other established construction materials when fully cured.

Fire

Tested to AB, BS476 Part 3

Flex-trim Technical Information

Effects of Chemicals (all values are typical)

Excellent resistance to dilute and concentrated acids, alcohol, bases, aliphatic hydrocarbons and mineral oils. Good resistance (minor attack) to vegetable oils and oxidising agents. Limited resistance (moderate attack, suitable for short term use only) to aldehydes.

Poor resistance (not suitable for use) with aldehydes, esters, aromatic and halogenated hydrocarbons and ketones e.g. Acetone.

Liquids

Water absorption (24 hours immersion) (ASTM S570) 0.05% Max -
Min temperature 70°C to -20°C

Fire

uPVC has inherent flame retardent properties.

Thermal properties

Thermal coefficient of expansion 80 x 10⁻⁶ m/m per °C

Physical properties

Tensile Strength 46 mpa

Tensile modules 2380 mpa

Flexural Strength 78 mpa

Flexural modules 2000 mpa

Dielectric constant (ASTM D150) 3.1- 8.0 kHz

Durability

Approximate life expectancy under normal exposure conditions in Northern Europe is 25 years, but Flex-trim profiles may remain structurally sound beyond this period.

Working characteristics

Lightweight and shatterproof. Can be cut with fine tooth saw or tin snips and drilled with normal hand or power tools.

Finishes

Flashings are supplied in either white or grey finish as standard. The simulated lead flashing is in grey only. Other colours are available, subject to minimum quantities.

Handling and Storage

Appropriate care must be taken at all times when handling, storing and installing the Flextrim roofing components.

Sealants

If in doubt, always seek advice as to the correct sealant for use with uPVC flashings.

Effects of Sunlight

Flextrim flashings are UV stabilised.

Compatibility

No chemical reaction with other established construction materials.

For technical support please call 01543 687 300

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