

Technical Information Sheet

Rooflight Application Guide



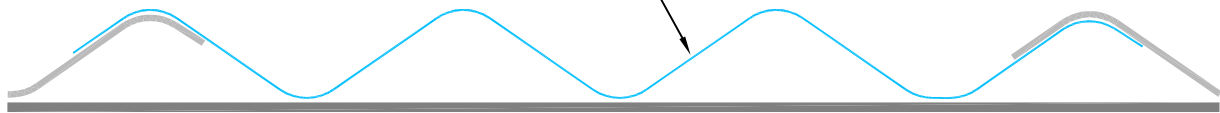
TIS109 November 2020

Previous issue July 2020

Rooflights for use with asbestos cement and fibre cement roof systems

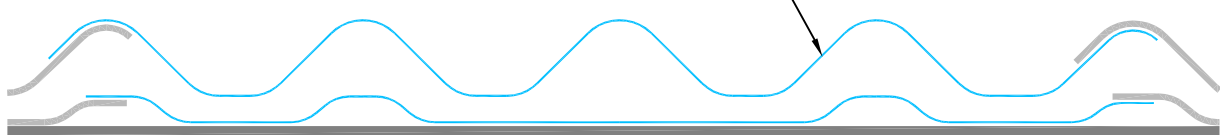
The following fixing and sealing recommendations may be applied to single skin rooflights and the outer skin of site assembled rooflights or factory assembled rooflights. The examples shown represent the most common profiles in various depths and the general fixing recommendations may be applied to other profiles of similar depth. Contact the Filon Technical Department for recommendations to suit a specific application if required.

Rooflight matches the profile of the main roof sheet profile



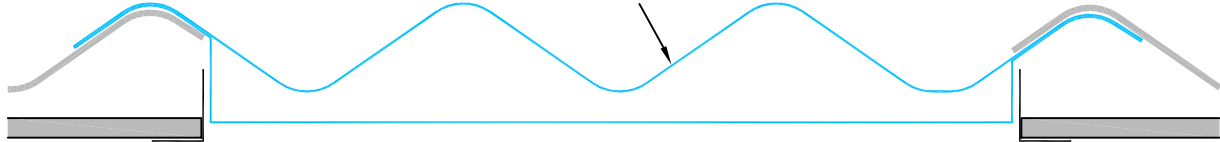
Typical single skin configuration

Outer rooflight sheet matches the profile of the main roof sheet profile. The liner may be profiled asbestos cement, fibre cement or profiled steel in the case of more recent roof systems.



Typical site assembled configuration

Outer rooflight sheet matches the profile of the main roof sheet profile. The box liner is normally unsupported by the purlins and is suspended between them. A spacer is normally located between the outer sheet and purlins at fixing locations



Typical factory assembled configuration

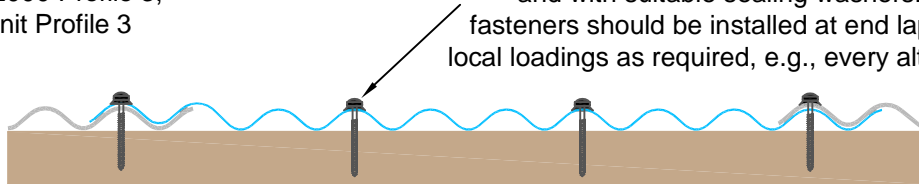
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Typical fixing recommendations

Cape Standard 3 inch, typical cross section

Other descriptions for the same profile include: -
TAC Standard, Eternit 2000 Profile 3,
Tunnel 3 (T3), and Eternit Profile 3

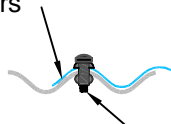
Main fasteners that are suitable for the purlin support type and with suitable sealing washers. Note that additional fasteners should be installed at end laps and areas of high local loadings as required, e.g., every alternate profile crown



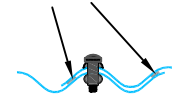
Main fasteners

One run of 4mm bead, cross-linked butyl mastic sealant on the weather side of the stitch fasteners

For a rooflight to rooflight side lap, two continuous runs of 10mm x 4mm or similar, UV stable, self-adhesive, high durability EPDM tape may be used in lieu of butyl mastic for aesthetic reasons



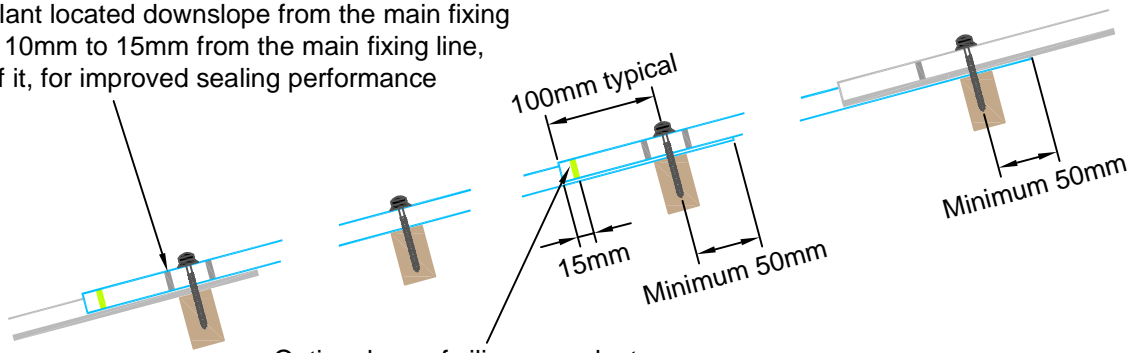
Side laps



Stitch fasteners such as expanding grommet bolts that incorporate suitable sealing washers @ maximum 450mm centres

Cape Standard 3, typical end laps and intermediate purlins

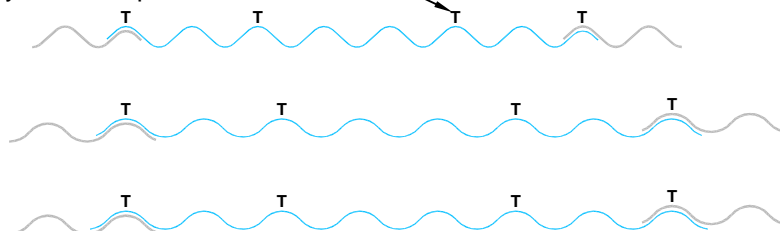
Minimum one continuous run of 4mm bead, cross-linked butyl mastic sealant located downslope from the main fixing line or two runs 10mm to 15mm from the main fixing line, on both sides of it, for improved sealing performance



Optional run of silicone sealant (ISO 11600-F-25 LM)

Similar profiles and typical fastener locations for general areas

Increase fastener frequency at end laps and areas of high local loadings, e.g., every alternate profile crown



Tegral Super 4

Compton B5

Eternit Profile 5

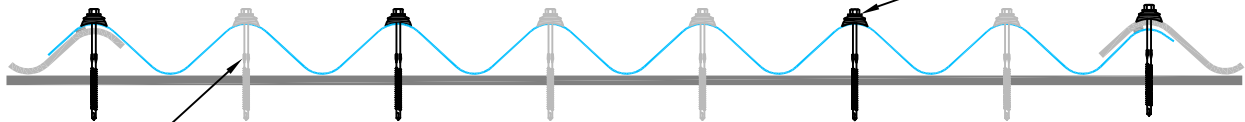
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Typical fixing recommendations

TAC Bigsix, typical cross section

Other descriptions for the same profile include: - Cape Standard Six, Eternit Major Six, Eternit 2000 Profile 6, Tunnel 6 (T6), Gleno Six and Eternit Profile 6

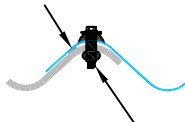
Main fasteners that are suitable for the purlin support type and with suitable sealing washers. Note that additional fasteners should be installed at end laps and areas of high local loadings as required, e.g., every profile crown



Fix at every profile crown for rooflights installed in a new fibre cement sheeted roof

Main fasteners

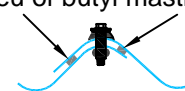
One continuous run of 6mm bead, cross-linked butyl mastic sealant on the weather side of the stitch fasteners



Stitch fasteners such as expanding grommet bolts that incorporate suitable sealing washers @ maximum 450mm centres

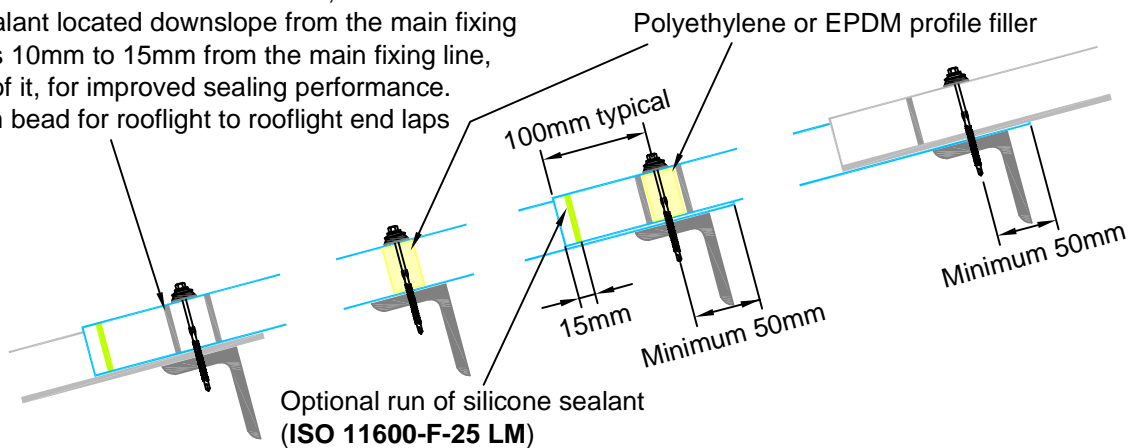
For a rooflight to rooflight side lap, two continuous runs of 10mm x 5mm or similar, UV stable, self-adhesive, high durability EPDM tape may be used in lieu of butyl mastic for aesthetic reasons

Side laps



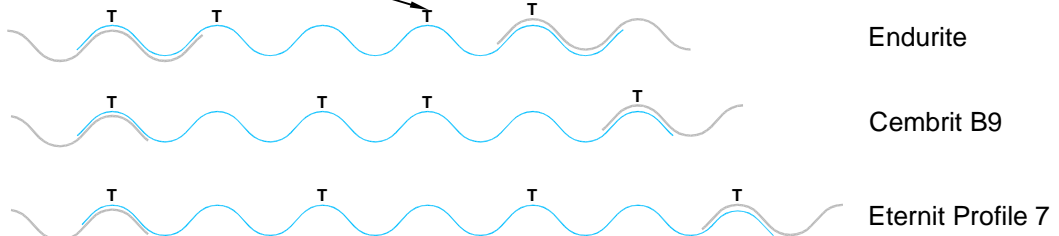
TAC Bigsix, typical end laps and intermediate purlins

Minimum one continuous run of 8mm bead, cross-linked butyl mastic sealant located downslope from the main fixing line or two runs 10mm to 15mm from the main fixing line, on both sides of it, for improved sealing performance. Note, use 6mm bead for rooflight to rooflight end laps



Similar profiles and typical fastener locations for general areas

Increase fastener frequency at end laps and areas of high local loadings, e.g., every profile crown



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Typical fixing recommendations

TAC Trafford Tile, typical cross section

Other descriptions for the same profile include: -
Cape Canada Tile, Atlas Tile, and Tunnel 4 (T4)

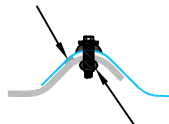
Main fasteners that are suitable for the purlin support type and with suitable sealing washers



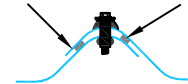
Main fasteners

One continuous run of 6mm bead, cross-linked butyl mastic sealant on the weather side of the stitch fasteners

For a rooflight to rooflight side lap, two continuous runs of 10mm x 5mm or similar, UV stable, self-adhesive, high durability EPDM tape may be used in lieu of butyl mastic for aesthetic reasons



Side laps

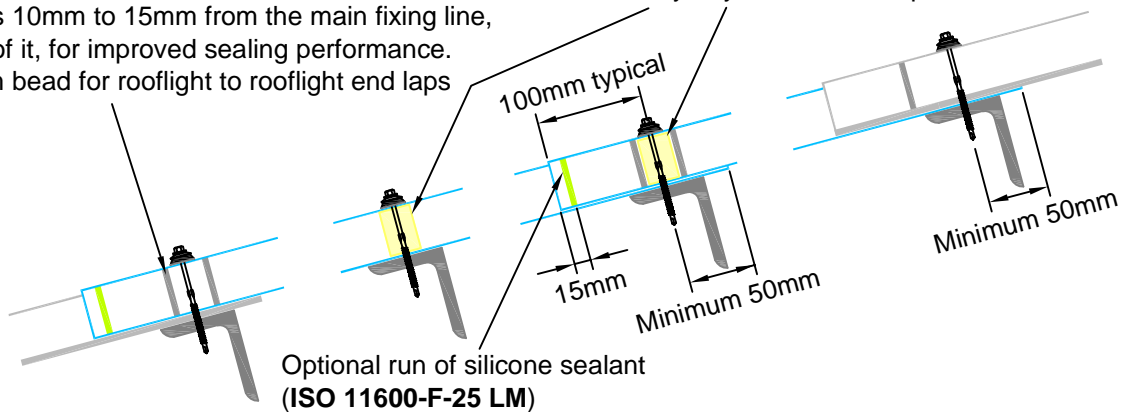


Stitch fasteners such as expanding grommet bolts that incorporate suitable sealing washers @ maximum 450mm centres

TAC Trafford Tile, typical end laps and intermediate purlins

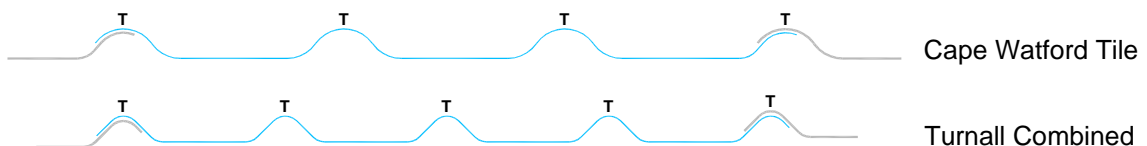
Minimum one continuous run of 8mm bead, cross-linked butyl mastic sealant located downslope from the main fixing line or two runs 10mm to 15mm from the main fixing line, on both sides of it, for improved sealing performance. Note, use 6mm bead for rooflight to rooflight end laps

Polyethylene or EPDM profile filler



Optional run of silicone sealant (ISO 11600-F-25 LM)

Similar profiles and typical fastener locations for general areas



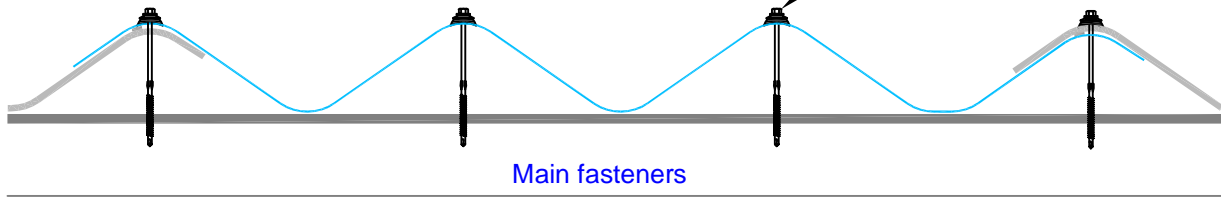
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Typical fixing recommendations

TAC Doublesix, typical cross section

Another description for the same profile is Tunnel D6 (TD6)

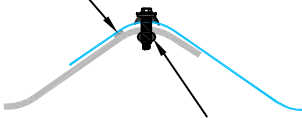
Main fasteners that are suitable for the purlin support type and with suitable sealing washers



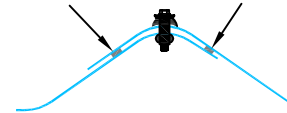
Main fasteners

One continuous run of 10mm bead, cross-linked butyl mastic sealant on the weather side of the stitch fasteners. Note, use 6mm bead for rooflight to rooflight side laps

For a rooflight to rooflight side lap, two continuous runs of 10mm x 5mm or similar, UV stable, self-adhesive, high durability EPDM tape may be used in lieu of butyl mastic for aesthetic reasons



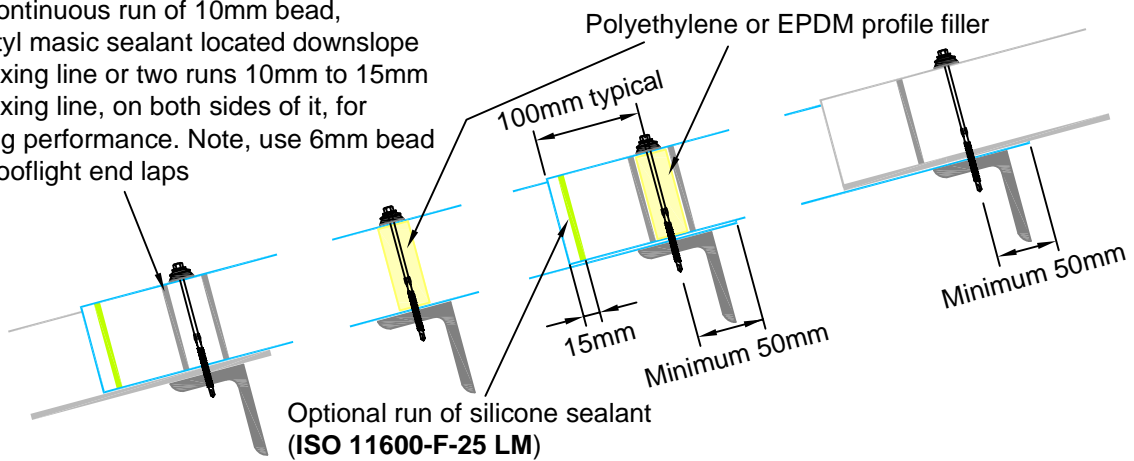
Side laps



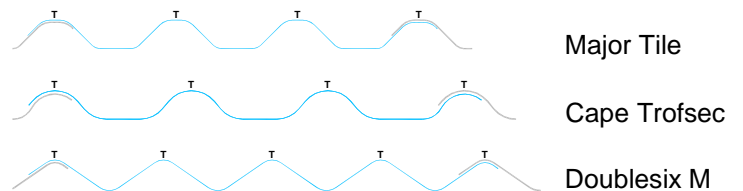
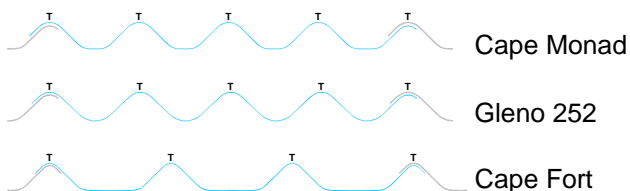
Stitch fasteners such as expanding grommet bolts that incorporate suitable sealing washers @ maximum 450mm centres

TAC Doublesix, typical end laps and intermediate purlins

Minimum one continuous run of 10mm bead, cross-linked butyl mastic sealant located downslope from the main fixing line or two runs 10mm to 15mm from the main fixing line, on both sides of it, for improved sealing performance. Note, use 6mm bead for rooflight to rooflight end laps



Similar profiles and typical fastener locations for all areas



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Recommended sheet types for use with new reinforced fibre cement roof systems, expected non-fragility periods

Application	Non-fragility classification to ACR[M]001	¹Minimum specification Durability statement available	25 years 25 year durability guarantee available	25 years plus 25 year durability guarantee available	30 years 30 year durability guarantee available
Single skin & site assembled/factory assembled outer skin	C Same rating as new fibre cement sheeting	² CE24E	CE30E or CEDR24E	CE36E or CEDR30E	Supasafe E

¹Note that the expected non-fragility period of rooflights is affected by all components used within the roof assembly and when a specific period of non-fragility is required all components used should have the same degree of durability as the rooflights. This would typically require the use of austenitic stainless steel fasteners and minimum Class A butyl mastic sealant, always consult the component manufacturer or supplier.

²Minimum specification, correctly installed rooflights are rated Class C non-fragile during the construction phase, when new, and for an expected period of 5 to 20 years depending on external factors as defined in the National Association of Rooflight Manufacturers guidance document NTD03.

Recommended sheet types for use with old, fragile asbestos or fibre cement roof systems

Rooflight type	Minimum specification May be vulnerable to high wind loads, recommended to avoid if possible	Standard recommended specification Durability statement available	Higher specification 25 year durability guarantee available	Superior specification 25 year durability guarantee available	Optimum specification 30 year durability guarantee available
Single skin or site assembled / factory assembled outer skin	CE18E	CE24E	CE30E or CEDR24E	CE36E or CEDR30E	Supasafe E

The rooflight types above do not have a non-fragile classification because the roofs that they are used in are classed as fragile.

Fire performance

Filon Grade 104: B_{ROOF} (t4) to BS EN 13501 Part 5. SAA to BS 476 Part 3. Class 1 to BS 476 Part 7. Standard for single skin and as a liner.

Filon Grade 300: B_{ROOF} (t4) to BS EN 13501 Part 5. SAB to BS 476 Part 3. Class 1 to BS 476 part 7. May be used for the external sheet of a site assembled or factory assembled rooflight and when allowed in Building Regulations for certain applications, as a single skin rooflight for example or the inner surface of a double or multi skinned rooflight.

These include buildings that are exempt from Building Regulations, buildings within certain size constraints and rooflights within certain area and spacing constraints, e.g., maximum 5m² rooflight or group of rooflights area and minimum 3.0m between rooflight areas. If the rooflights are evenly distributed and do not exceed 20% of the room they are located over. The space separation may be reduced to 1.8m on non-residential buildings.

Continued.

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Fire performance continued

Filon Grade 101: B_{ROOF} (t4) to BS EN 13501 Part 5. SAA to BS 476 Part 3. Class 1 to BS 476 Part 7. Class 0 as defined in Building Regulations, to BS 476 Part 6.

Available when a higher fire performance than is normally required in Building Regulations is specified.

For further information, please refer to Filon Technical Information Sheet TIS003.

Typical fixing specification

Main fasteners

Filon rooflights should be secured to purlins with fasteners that are suitable for the purlin type and that incorporate sealing washers such as BAZ washers that can be used with sinusoidal profiles. Fasteners should normally be located at the profile crowns at centres across the sheet appropriate for the profile types as shown on the previous pages, at every purlin location.

End laps

Any end laps should be located directly over a purlin. The top edge of an underlapping rooflight should be minimum 50mm from the main fixing line. The leading edge of an overlapping rooflight is normally 100mm from the main fixing line. The end lap joints should be sealed with minimum one run down slope from the main fixing line, or preferably two continuous runs of 4mm, 8mm or 10mm bead cross-linked butyl mastic sealant depending upon the profile types as shown on the previous pages. The double sealant runs should be located within 10mm to 15mm on either side of the fixing line. An optional run of gun applied silicone to classification ISO 11600-F-25 LM may be applied 15mm from the leading edge of the overlapping rooflight within the joint to provide a supplementary seal and prevent dirt ingress.

Side laps

The side lap joints should be stitched at maximum 450mm centres with purpose made GRP or plastic sheet stitch fasteners such as expanding rubber grommet bolts. On exposed sites or roof pitches below 10° the centres should be reduced to 300mm. The side lap joints should be sealed with minimum one run of 4mm, 6mm or 10mm bead cross-linked butyl mastic sealant, depending upon the profile types shown on the previous pages, located on the weather side of the stitch fasteners. For rooflight to rooflight side laps, 10mm x 5mm or similar, UV stable, self-adhesive, high durability EPDM tape may be used in lieu of butyl mastic sealant for aesthetic reasons.

Notes



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