

Technical Information Sheet

Rooflight Application Guide



TIS101 November 2020

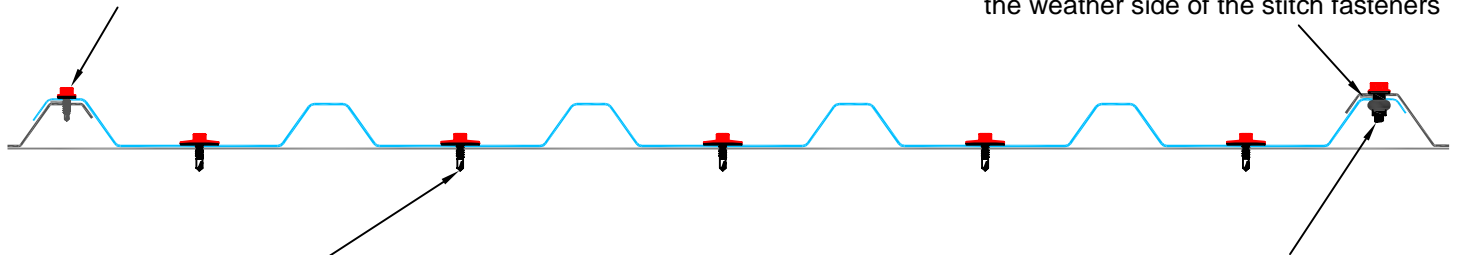
Previous issue April 2020

Single skin rooflight for use with single skin profiled metal roof systems

Typical cross section

Stitch screws @ maximum 450mm centres where a rooflight overlaps a metal sheet (preferred option). For exposed sites or roof pitches less than 10° reduce centres to 300mm

Continuous run of 6mm x 5mm tape or 6mm bead, cross-linked butyl mastic sealant on the weather side of the stitch fasteners



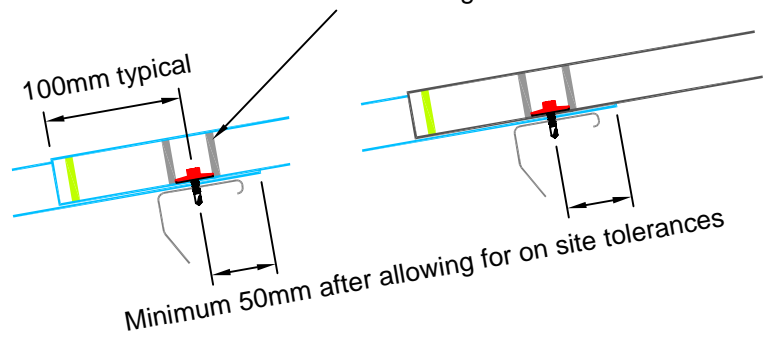
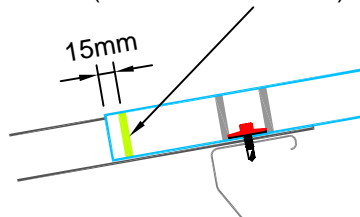
Austenitic stainless steel main fasteners that incorporate minimum 29mm diameter sealing washers @ maximum 200mm centres. Minimum 19mm diameter sealing washers may be used with a CE36E, CEDR30E or Supasafe E sheet subject to wind loads

Grommet type stitch bolts suitable for GRP sheeting @ maximum 450mm centres when a rooflight is overlapped. **Note, it is recommended to overlap on both sides whenever possible.** For exposed sites or roof pitches less than 10° reduce stitch centres to 300mm

Typical end laps and intermediate purlins

Two continuous runs of 6mm x 5mm tape or 6mm bead, cross-linked butyl mastic sealant located 10mm to 15mm from the main fixing line on both sides of it

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





Recommended sheet types

Filon sheet type	Non-fragility classification to ACR[M]001	¹Expected period of non-fragility	Recommended frequency of roof access	Recommended purlin spans
CE30E	B	² 5 to 20 years	Infrequent	1.35m to 2.0m
CEDR24E	B	² 5 to 20 years	Infrequent	1.35m to 2.0m
CE36E	B	25 years	Frequent	1.0m to 2.25m
CEDR30E	B	25 years	Frequent	1.0m to 2.25m
SUPASAFE E	B	30 years	Very frequent	0.6m to 2.5m

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 B 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.

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 requirement for compliance with Building Regulations.

Filon Grade 300: B_{ROOF} (t4) to BS EN 13501 Part 5. SAB to BS 476 Part 3. Class 3 to BS 476 Part 7. Allowed in Building Regulations for certain applications, restrictions apply.

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.

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Typical fixing specification

Minimum roof pitch

In accordance with BS 5427: *Code of practice for the use of profiled sheet for roof and wall cladding on buildings*, Filon rooflights are suitable for a finished roof pitch of at least 4° (5.5° design pitch). For lower roof pitch solutions, please contact the Filon Technical Department.

Main fasteners

Filon single skin rooflights should be secured to purlins with minimum 5.5mm diameter, self drill/tap austenitic stainless steel screws that incorporate minimum 29mm diameter sealing washers, typically coloured poppy red. Note that subject to wind loads, minimum 19mm diameter sealing washers may be used with a Filon CE36E, CEDR30E or Supasafe E sheet. Fasteners should be located in the profile troughs at maximum 200mm centres across the sheet 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 two continuous runs of 6mm x 5mm tape or 6mm bead cross-linked butyl mastic sealant. The 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 sheet 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 if the rooflight is overlapped by adjacent metal sheets or laps to another rooflight, but note that it is recommended for a rooflight to overlap the metal sheets on both sides whenever possible. Standard stitch screws may be used where a rooflight overlaps the adjacent metal sheet. 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 6mm x 5mm tape or 6mm bead cross-linked butyl mastic sealant located on the weather side of the stitch fasteners.

Notes

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