

Technical Information Sheet

Rooflight Application Guide

FILON®

TIS102 November 2025

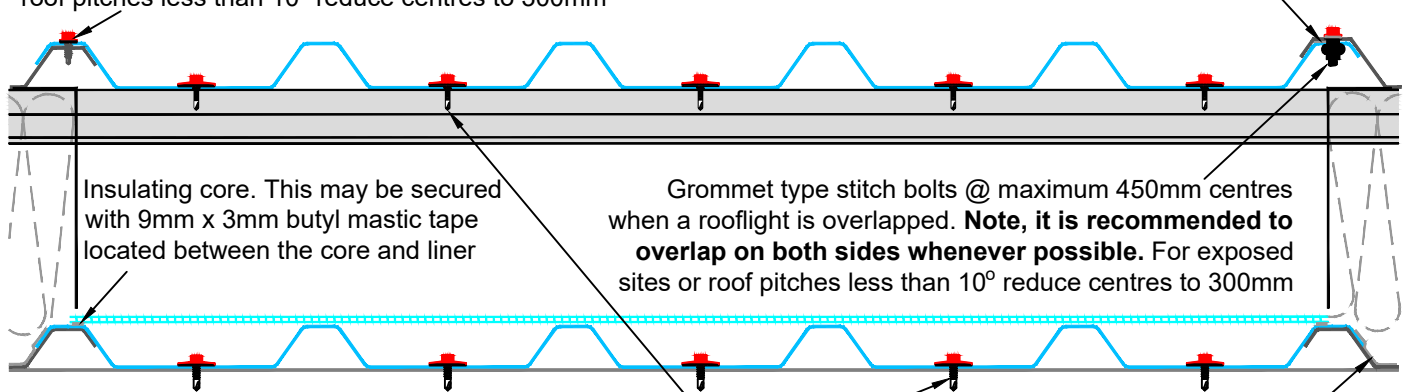
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Site assembled rooflight for use with a built-up profiled metal system that incorporates a 0.7mm gauge steel 'walkable' liner

Typical cross section

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

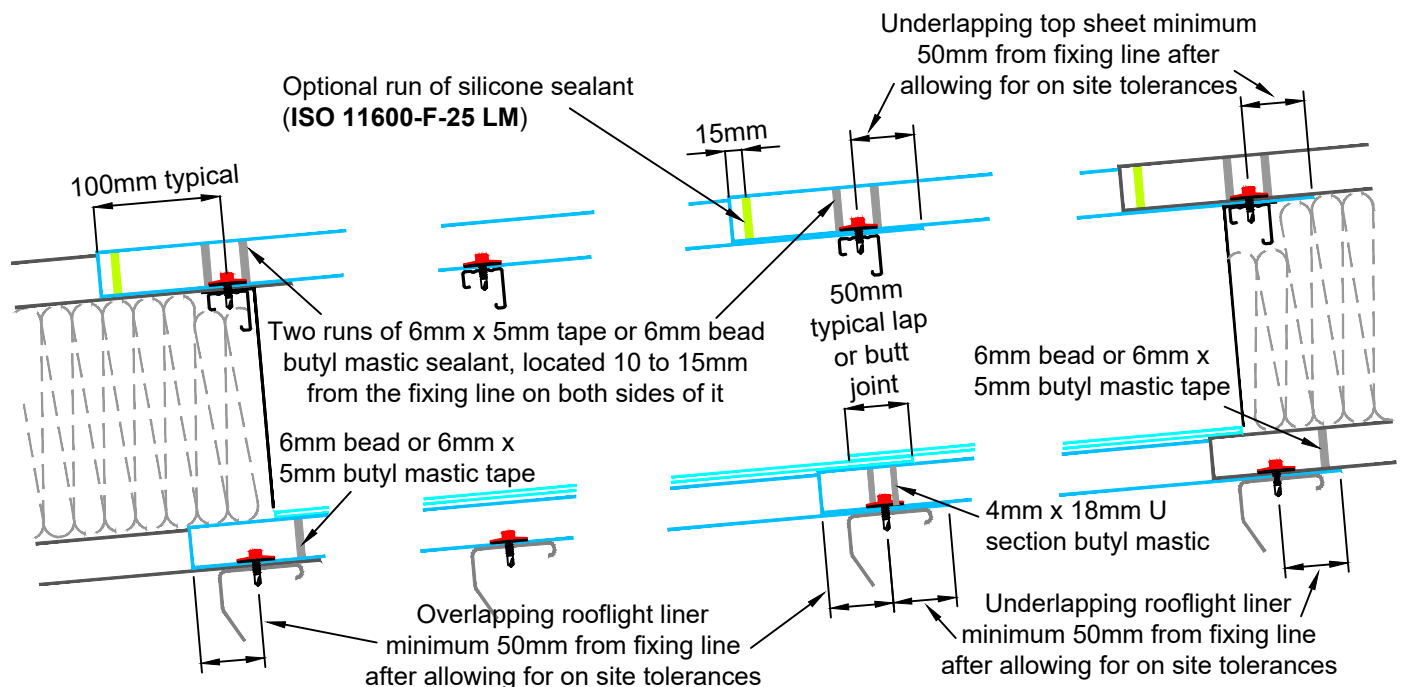
Stitch screws @ 450mm centres where rooflight overlaps (preferred option). For exposed sites or roof pitches less than 10° reduce centres to 300mm



Minimum 5.5mm diameter austenitic stainless steel main fasteners that incorporate minimum 29mm diameter sealing washers @ maximum 200mm centres for outer sheets, or minimum 5 fasteners per sheet width for liners

Liners should overlap on both sides. Use 50mm wide, film backed butyl tape to provide an air seal

Typical end laps and intermediate purlins



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Recommended sheet types

Filon outer sheet type	Non-fragility classification to ACR[M]001 with a minimum CE30 liner ⁽¹⁾	Expected period of non-fragility ⁽²⁾	Recommended frequency of roof access	Recommended purlin spans when using a CE30 liner ⁽³⁾
CE18E ⁽⁴⁾	B	25 years	Infrequent	1.35m to 2.0m
CE24E ⁽⁴⁾	B	25 years	Infrequent	1.35m to 2.0m
CE30E & CEDR24E	B	25 years plus	Frequent	1.35m to 2.0m
CE36E & CEDR30E	B	25 years plus	Frequent	1.35m to 2.0m
SUPASAFE E	B	30 years	Very frequent	1.35m to 2.0m

⁽¹⁾ Roof systems that incorporate a 0.7mm gauge steel liner are designed to be Class B non-fragile at the lining out stage and a minimum CE30 rooflight liner will be Class B non-fragile when fixed and sealed as recommended. A CE18 or CE24 liner will be classified as fragile at the lining out stage and should not be used.

⁽²⁾ Note 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 for the rooflight installation, always consult the component manufacturer or supplier.

⁽³⁾ A higher specification liner than a CE30 will be required in the event that purlin spans are less than 1.35m or more than 2.0m. Please contact the Filon Technical Department for recommendations.

⁽⁴⁾ CE18E and CE24E outer sheet types will provide a Class B non-fragile classification when used with a correctly installed minimum CE30 liner but higher specification outer sheets may be required in areas of high wind loads or snow loads.

Fire performance

Filon Grade 300: B_{ROOF} (t4) to BS EN 13501 Part 5.

Filon Grade 104: B_{ROOF} (t4) to BS EN 13501 Part 5. TP(a) rating to BS 2782-0 Method 508A.

Filon Grade 101: B_{ROOF} (t4) to BS EN 13501 Part 5. TP(a) rating to BS 2782-0 Method 508A.

For further information, please refer to Filon Technical Information Sheet:

- TIS003 England
- TIS003-1 Wales
- TIS003-2 Scotland
- TIS003-3 Northern Ireland

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U-value W/m²K

Double skin

3.22. Non-compliant for a building that is not exempt from Building Regulations.

Triple skin

1.72 as standard, 1.37, 1.28 and 0.93 are also available.

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 Filon Technical Department.

Liner main fasteners

The Filon liners should be secured to purlins with minimum five fasteners per sheet width that are located in the profile troughs. The fasteners should be minimum 5.5mm diameter, self drill/tap screws that incorporate minimum 29mm diameter sealing washers.

Liner end laps

Liner end laps should be located directly above a purlin and the edges of any sheet in the joint should be minimum 50mm from the fixing line. The end lap joints should be sealed with a continuous run of 6mm bead or 6mm x 5mm cross-linked, butyl mastic sealant tape.

Note that for rooflight to rooflight liner end laps it is recommended that they should be sealed with a continuous run of 4mm x 18mm U section butyl mastic centred over the fixing line, applied before the main fasteners are installed.

Liner side laps

The Filon liners should be lapped over the adjacent metal liners on both sides and the joints sealed with 50mm wide, cross-linked, film backed butyl mastic tape that is located along the full length of the joints to provide an air seal.

Core panel

The core panel should be secured to the liner with a continuous run of 9mm x 3mm cross-linked butyl mastic tape located between the core panel and the sidelapping profile crowns of the liner. The core panels may be end lapped at intermediate purlin positions. The lap joint should be typically 50mm long and the use of sealants is not required. Alternatively the core panels may be butt jointed. The spacer system brackets may be located either side of the rooflight area to avoid fouling with the core panel. The core panel may also be notched around a spacer bracket in the event that it is preferable to locate it within the rooflight area. Note, consult the spacer system manufacturer for their recommendations.

Outer sheet main fasteners

The Filon outer sheets should be secured to the spacer system with minimum 5.5mm diameter, austenitic stainless steel self drill/tap screws that incorporate minimum 29mm diameter sealing washers, typically coloured poppy red, at maximum 200mm centres across the sheets, located in the profile troughs.

Outer sheet end laps

The end laps of the Filon outer sheets should be located directly over the spacer bar and the edges of any sheet in the joint should be minimum 50mm from the fixing line, typical end lap length is 150mm. The end lap joints should be sealed with two continuous runs of 6mm bead or 6mm x 5mm tape, cross-linked butyl mastic sealant. The sealant should be located within 10mm to 15mm of the fixing line on either side of it. 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. Note that rooflight to rooflight external skin sheet end laps may be fixed and sealed as above.

Continued.

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Typical fixing specification continued

Outer sheet side laps

The side lap joints should be stitched at maximum 450mm centres with standard stitch screws where the rooflight overlaps the metal sheet. If the rooflight should have to underlap the adjacent metal sheet or lap to another rooflight, purpose made rooflight stitch fasteners such as expanding rubber grommet bolts should be used. Note that it is preferable to overlap the metal sheets on both sides whenever possible. On exposed sites or roof pitches below 10° reduce stitch centres to 300mm. The side lap joints should be sealed with a single continuous run of 6mm bead or 6mm x 5mm tape, cross-linked butyl mastic sealant located on the weather side of the stitch fasteners.

Notes

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Composites

