

# Technical Information Sheet

## Rooflight Application Guide

# FILON®

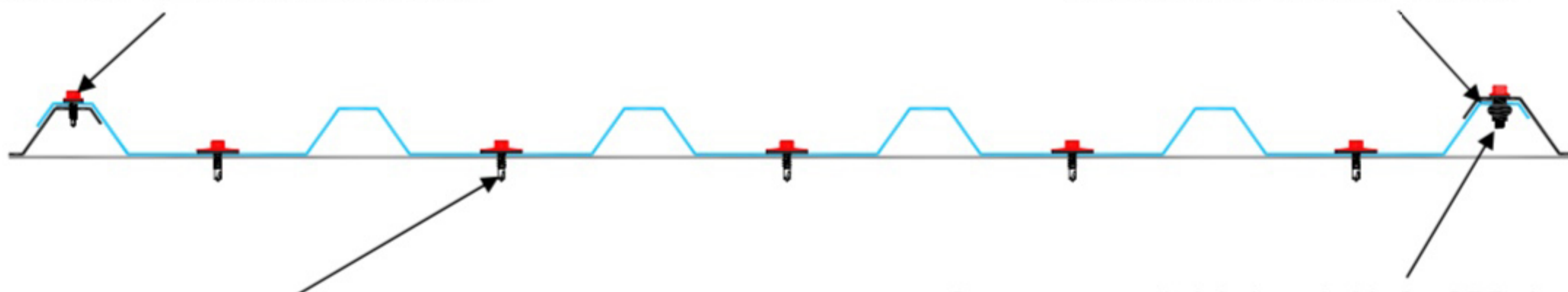
TIS101 July 2016

### Single skin rooflight for use with a single skin profiled metal roof system

#### Typical cross section

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

6mm x 5mm tape or 6mm bead butyl mastic sealant on the weather side of the stitch fasteners



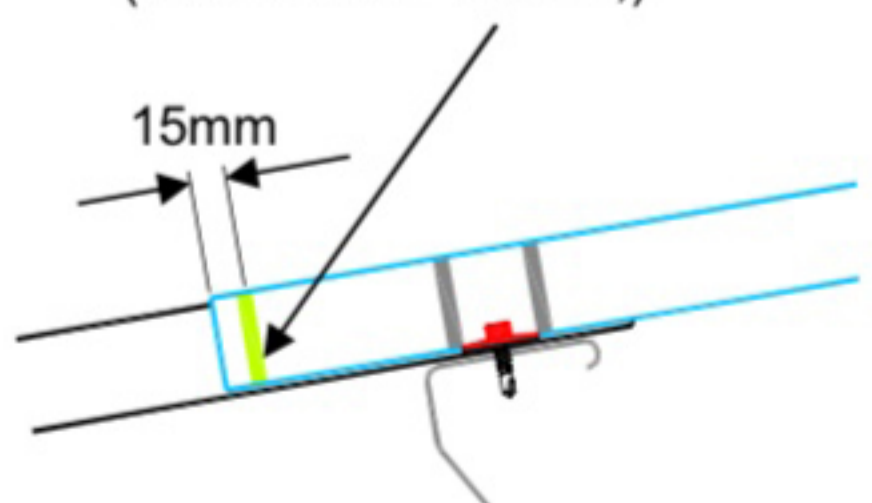
Main fasteners that incorporate minimum 29mm diameter sealing washers @ maximum 200mm centres. Minimum 19mm diameter washers may be used with a CE36E, CEDR30E or Supasafe E sheet, subject to wind loads

Grommet type stitch bolts suitable for GRP sheeting @ 450mm centres when a rooflight underlaps a metal sheet. **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

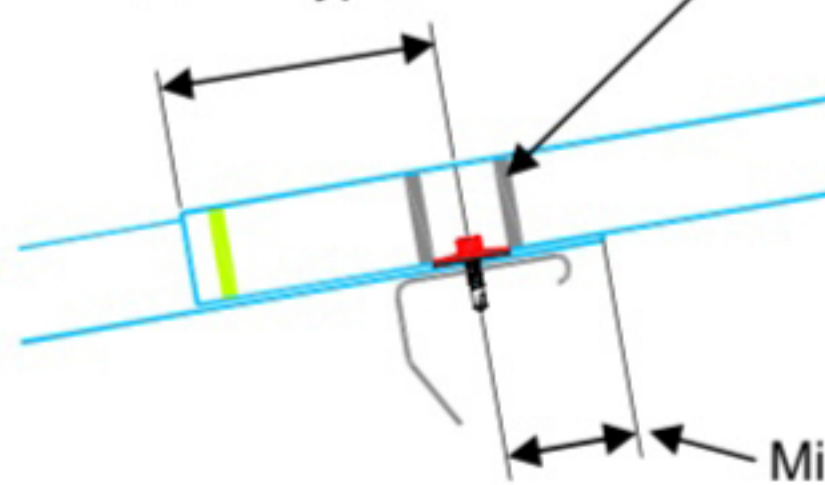
#### Typical endlaps

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

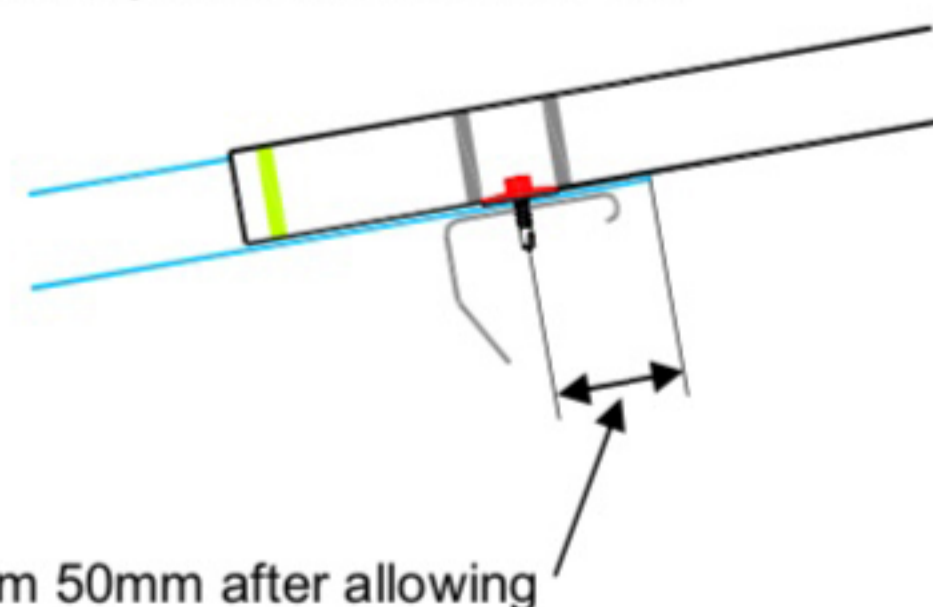
Optional run of silicone sealant (ISO 11600-F-25 LM,)



100mm typical



Minimum 50mm after allowing for on site tolerances



### Recommended sheet types

Filon sheet type	Non-fragility classification to ACR[M]001	<sup>1</sup> Expected period of non-fragility	Recommended frequency of roof access	Recommended purlin spans
CE30E	B	<sup>2</sup> When new	Infrequent	1.35m to 2.0m
CEDR24E	B	<sup>2</sup> When new	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

<sup>1</sup>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 sealant, always consult the component manufacturer or supplier.

<sup>2</sup>Minimum specification, correctly installed rooflights are rated Class B non-fragile during the construction phase 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 that is rated AA, Class 1 to BS476 Parts 3 and 7 as standard.

Filon Grade 300 that is rated AB, Class 3 to BS476 Parts 3 and 7 when allowed in Building Regulations for certain applications.

Note that Filon Grade 101, designated Class 0 by definition in Building Regulations, is also available.

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

## 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 GRP trapezoidal 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.

### 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.

### Endlaps

Any endlaps 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 endlap joints should be sealed with two continuous runs of 5mm x 6mm 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 to prevent dirt ingress.

### Sidelaps

The sidelap 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 underlaps the adjacent metal sheet or laps to another rooflight but note that it is recommended for a roof light to overlap 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 sidelap joints should be sealed with minimum one run of 5mm x 6mm tape or 6mm bead cross-linked butyl mastic sealant located on the weather side of the stitch fasteners.

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