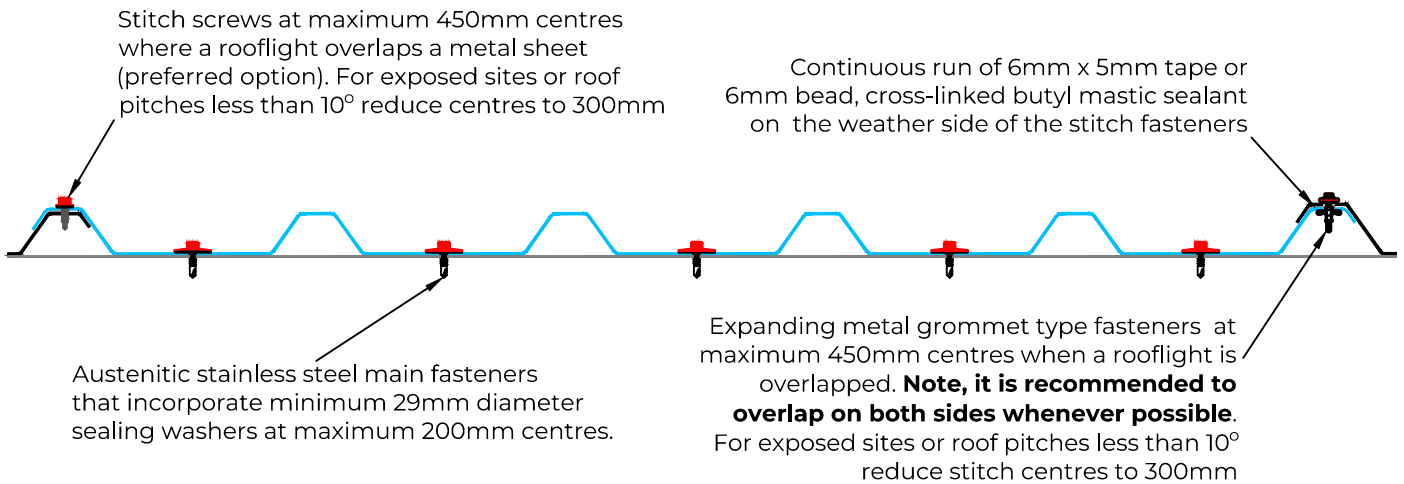


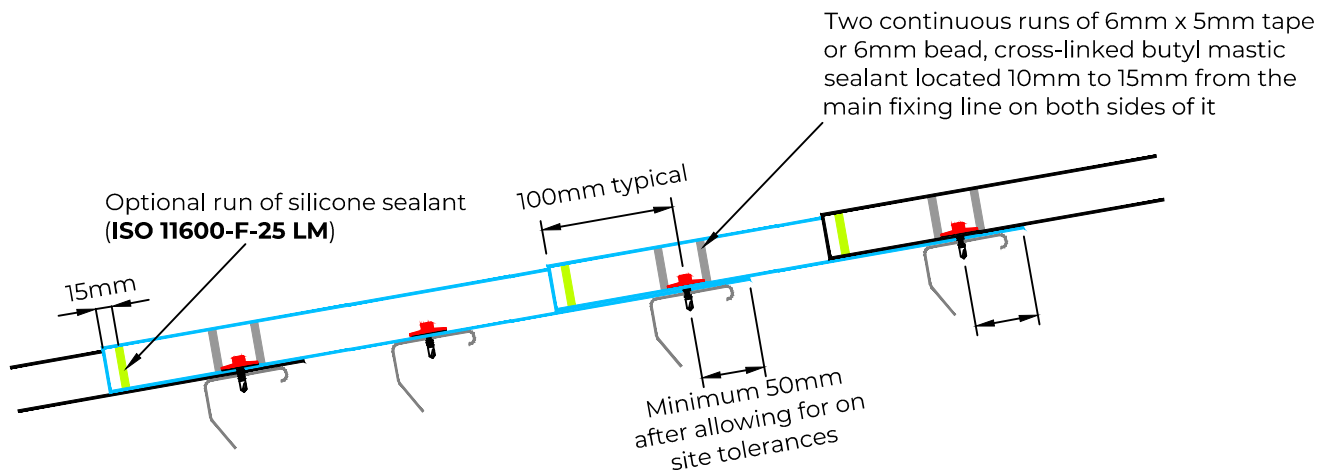
# ROOFLIGHT APPLICATION GUIDE

## Ascend System 1 - Single skin rooflight for use with single skin profile metal roof systems

### Typical Cross Section



### Typical End Laps and Intermediate Purlins



**Recommended Sheet Types**

Filon sheet type	Non-fragility classification to ACR[M]001	Expected period of non-fragility <sup>(1)</sup>	Recommended frequency of roof access	Recommended purlin spans
CE30E	B	5 to 20 years <sup>(2)</sup>	Infrequent	1.35m to 2.0m
CEDR24E	B	5 to 20 years <sup>(2)</sup>	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, when new, and for an expected period of 5 to 20 years depending on external factors as defined in the Rooflight Association guidance document NTD03.1.

**Fire Performance**

Filon Grade 300: B<sub>ROOF</sub>(t4) to BS EN 13501 Part 5.

Filon Grade 104: B<sub>ROOF</sub>(t4) to BS EN 13501 Part 5. TP(a) rating to BS 2782-0 Method 508A

Filon Grade 101: B<sub>ROOF</sub>(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

**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.

**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. 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 expanding metal grommet type fasteners 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.

**Properties Table**

Top sheet	U-value W/m <sup>2</sup> K	G-value	Light transmission	Expected period of non-fragility
CE18E	5.70	0.75	0.77	5 to 20 years
CE24E	5.70	0.75	0.79	5 to 20 years
CE30E	5.70	0.77	0.78	5 to 20 years
CEDR24E	5.70	0.75	0.79	5 to 20 years
CE36E	5.70	0.70	0.72	25 years
CEDR30E	5.70	0.63	0.62	25 years
Supasafe E	5.70	0.58	0.54	30 years



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