



Daylight Systems

## Safelight Energysaver FAIR

Consult Brett Martin Daylight Systems early in the design process as we can provide in-depth assistance with design and specification.

A low U-value GRP factory assembled insulating rooflight (FAIR) compatible with composite panel systems, incorporating Safelight outer sheets.

Safelight Energysavers are the safest rooflights available, with unequalled safety margins that always matches and often exceeds surrounding metal sheets. Sufficiently strong rigid and durable to ensure that inclusion in the roof assembly does not create any additional risk.

Class B non-fragile to ACR[M]001:2005; unmatched rigidity ensures non-fragility will be retained for over 30 years with minimal risk from poor fixing or fixing degradation.

These are the most robust rooflights available, they are undamaged by loads typical of inadvertent foot traffic or a falling person.

These rooflights incorporate Diamond surface protection as standard, providing the greatest resistance to weathering, preserving physical properties and preventing UV discoloration for over 30 years.

All aspects of Safelight rooflight structural performance, non-fragility classification and resistance to discoloration can be expected to be retained for 30 years. Performance warranty available.

Energysaver FAIRs incorporate patented thermal membrane technology giving improved insulation without loss of light transmission.

Safelight Energysavers incorporate Hardpak rigid internal supports for minimum deflection at fixings.

Include Underlap Strip in the specification: it allows use of standard side stitch fasteners at the underlap, which reduces the cost of fasteners and number of fastener types required on site, and improves ease of installation.

Consult Brett Martin Daylight Systems technical literature for further details.

# NBS Specification Clause: Safelight Energysaver FAIR

System type:	To match composite cladding system
Material:	Natural, clear translucent GRP (tinted sheets available) Outer sheet: 5.5kg/m <sup>2</sup> , 3.0mm thick Liner panel: 1.8kg/m <sup>2</sup> , 1.0mm thick
Manufacturer:	Brett Martin Daylight Systems, Sandford Close, Aldermans Green Industrial Estate, Coventry, West Midlands CV2 2QU. Tel: 024 7660 2022. Fax: 024 7660 2745. Email: daylight@brettmartin.com Web: www.daylightsystems.com
Product ref:	Safelight Energysaver triple skin FAIR to match composite cladding system profile, to have full BBA approval.
Fragility class to ACR[M]001:	To be Class B non-fragile to ACR[M]001:2005 and withstand loads typical of inadvertent foot traffic or falling person without damage. To be sufficiently strong, rigid and durable to ensure inclusion in the roof assembly does not create any additional risk. To be marked with continuous indelible logo clearly visible from 5 metres to indicate safety performance. To be available with written performance warranty confirming that Safelight will retain non-fragile classification for at least 30 years.
Accessories:	Not applicable
Primary sheet fasteners:	5.5mm diameter fasteners fitted with large diameter washers and bonded seals located through Hardpak™ internal supports in the rooflights at top and intermediate purlins. The use of lightweight washers must be avoided.
Fastener profile location:	Fix through troughs in profile, in accordance with Brett Martin Daylight Systems recommendations, Technical Bulletin 124. Fixings should not be over tightened.
No. of fasteners per sheet width:	Eaves and end laps: There should be at least five main fixings per purlin, fitted in the trough, max. 200mm apart, which typically necessitates one or two fixings per trough. Intermediate supports: Minimum of 3 fasteners per sheet width.
Endlaps size:	150mm, with the fixings through the internal support of the down slope unit or composite.
Side laps stitching:	Stitching screws at approx 600mm centres on the crown of the corrugation. Ensure that Underlap Strip is specified to avoid the use of elastomer lap bolts where Safelight Energysaver is lapped under adjacent composite panels.
Sealing laps:	Sheets overlapped by metal: At end laps 2no. rows of 8mm diameter round section UV stable, pale coloured cross-linked butyl mastic, positioned 25mm above and below the line of fixings. At side laps 6x5mm UV stable, pale coloured cross linked butyl mastic on the crown just outside the line of the fixings. Sheets underlapped by metal: As for sheets overlapped by metal Sheets lapped by plastics: As for sheets overlapped by metal
Special features:	Thermal performance: U-value: 1.9 W/m <sup>2</sup> K, f-factor: 0.8. Inner Sheet: Patented thermal membrane to give U-value of 1.9W/m <sup>2</sup> K, without loss of light transmission Sidelap reinforcement: UnderlapStrip™ in the underlapping sidelap allowing standard stitching screws to be used on both sides. Internal reinforcement: Hardpak™ rigid internal supports at each purlin position with compressive bulk modulus of at least 8.0MPa. To withstand the weight of a 90kg man (applied evenly to a typical filler) with maximum deflection of 0.2mm. Hardpak internal supports MUST be located securely onto each purlin or onto a suitable purlin extension plate. Durability: written performance warranty to be provided that significant discolouration or structural degradation will be prevented and non-fragility classification will be retained for at least 30 years. Rigidity: Maximum deflection 3.2mm under 3-point bending test to BS 2782 Part 10: method 1005 1977 (EN63). Light transmission: 55-60% overall Length: Individual units should not exceed 5.5 metres. UV Protection: Diamond™ surface protection and UV stabilised resin system to protect against discolouration and degradation with guaranteed prevention of significant discolouration for 30 years. Performance proven by accelerated weathering test showing delta E less than 5 and light transmission reduced by less than 5% after 6000 hours exposure to QUV testing, comprising cycles of 4 hours of UVA340nm at 60°C and 4 hours condensation at 40°C. Fire rating: Outer sheet: SAB to BS476 Pt 3; Liner panel: Class 1 to BS476 Pt 7 (alternative fire ratings available) BBA certificate number 04/4114



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