



Daylight Systems

Trilite Ultra 45 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 Trilite Ultra 45 outer sheets.

Trilite Ultra 45 Energysavers are designed for a service life in excess of 30 years and there should be no significant discolouration for at least 20 years or significant loss of structural properties for at least 25 years.

Class B non-fragile to ACR[M]001:2005 and withstands loads typical of accidental foot traffic or a falling person without damage when fully fixed.

These rooflights exceed NARM recommendations for rooflights which can be expected to retain Class B non-fragility for at least 25 years (as defined in Guidance Note 2006/1), and can be expected to remain non-fragile provided all other components have been specified accordingly.

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

Trilite Ultra 45 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: Trilite Ultra 45 Energysaver FAIR

System type:	To match composite cladding system
Material:	Natural, clear translucent GRP (tinted sheets available) Outer sheet: 4.5kg/m ² , 3.0mm thick Liner panel: 1.8kg/m ² , 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:	Trilite Ultra 45 Energysaver triple skin FAIR to match composite cladding system profile, to have full BBA approval.
Fragility class to ACR[M]001:	Expected to remain Class B non-fragile to ACR[M]001:2005 for 25 years and to withstand loads typical of accidental foot traffic or a falling person without damage when fully fixed.
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 Trilite Ultra 45 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 ² K, f-factor: 0.8. Inner Sheet: Patented thermal membrane to give U-value of 1.9W/m ² K, without loss of light transmission Sidelap reinforcement: Underlap Strip™ 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: Will remain fit for purpose for at least 30 years subject to normal conditions Rigidity: Maximum deflection of outer sheet 4.0mm under 3-point bending test to BS2782 Pt 10: Method 1005 1977 (EN63) Light transmission: 55-60% overall Length: Individual units should not exceed 5.5 metres. UV Protection: Superlife™ surface protection and UV stabilised resin system to protect against discolouration and degradation to prevent significant discolouration for at least 20 years. Performance proven by accelerated weathering test showing delta E less than 10 and light transmission reduced by less than 12% after 3000 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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