



Daylight Systems

Product data sheet - Trilite 3.0 corrugated GRP

Product Description

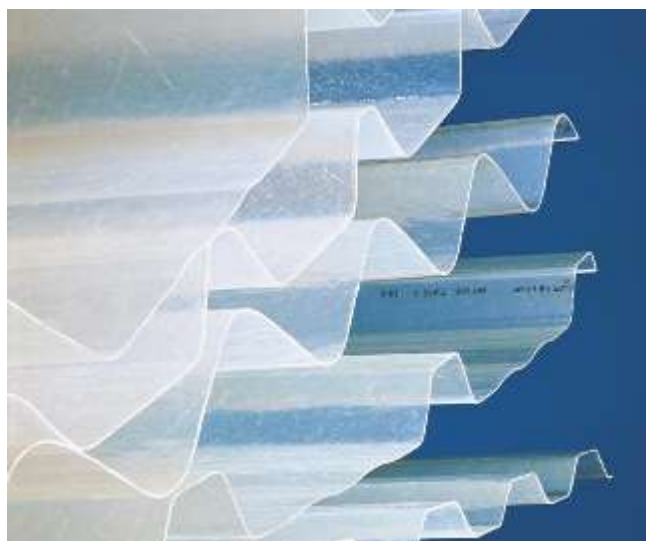
Trilite 3.0 rooflights are corrugated translucent GRP sheets; they weigh 3.0 kg/m², and are approximately 1.7mm thick. Typically supplied with fire ratings SAB to BS476 part 3 and Class 3 to BS476 part 7, they are also available with fire ratings of SAA, Class 1 or Class 0.

Trilite 3.0 rooflights are available to match most corrugated profiles for roof or wall, and can be installed in site assembled applications or as single skin.

Please see separate data sheet for Trilite 3.0 FAIRs.

BBA Approval

Trilite 3.0 has full BBA approval and is certified under 04/4114.



Safety Requirements / CDM Regulations

Trilite 3.0 rooflights can achieve Class B non-fragility to ACR[M]001:2005 as a single skin sheet or in combination with other rooflight skins. They meet minimum industry guidelines (as defined in NARM Guidance Note 2006/1):

	Classification ^a	Expected period of non-fragility ^b
At liner level alone:	Class B	
As site assembled outer: - over Trilite 1.8 liner	Class B	25 years
As single skin:	Class B	5 - 20 years

^a when installed with a roof system of equal or better non-fragility classification on purlin centres of 0.6m to 2.0m

^b when all other components perform in the same way for the same period

Trilite 3.0 rooflights fully fixed in these applications will resist loads typically created by foot-traffic or a falling person without failure, although such impacts may result in damage. Crawling boards should be used at all times and rooflights should not be subjected to impact or foot traffic. Damaged rooflights, whether from impact, foot traffic or other cause, must be replaced.

Durability

Trilite 3.0 rooflights have a life span in excess of 25 years. They have Superlife™ surface protection and UV stabilised resin system to protect against discolouration and degradation caused by UV exposure and will 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.

Composition & Appearance

Trilite 3.0 GRP is manufactured from polyester based resins (containing UV inhibitors, fire retardant and process additives) and chopped strand glass fibre reinforcement, with 33% glass content. Outer sheets also incorporate our Superlife UV protective surface developed in association with Dupont Melinex™, to resist the discoloration and degradation caused by UV exposure.

Coloured Sheet

Trilite 3.0 is available as translucent coloured sheet or opaque for specific applications.

Manufacture

Trilite 3.0 GRP is manufactured to EN 1013 under ISO 9001 Quality Management System.

Tolerances

Sheet weight:	± 10%
Sheet length:	-0 +20mm (for sheets <2.5m) -0% +0.8% (for sheets >2.5m)
Cover width:	± 0.8%
Squareness:	0.5% of cover width

Installation

Full installation details can be found in Technical Bulletin 156 or CAD drawing HC225.

Maintenance, Handling & Storage

For full maintenance, handling and site storage details see separate data sheet - COSHH Data Sheet 01.

Fire Ratings

Building Regulations Approved Document B (2006 edition, amended 2007) sets out the rules for fire safety of buildings, which can be met by achieving specific fire ratings to either British (BS476) or European BS EN 13501) test standards.

Section B2 covers internal fire spread (typical to BS476 pt7) and applies to the linings of both roof and wall, Section B4 covers external fire spread (typically to BS476 part 3) and applies to external roof and wall coverings.

We are able to supply 3 grades of fire rated Trilite GRP sheets each of which are rated to both BS476 parts 3 & 7, as follows:

Sheet	BS476 pt3	BS476 pt7	Building Regs/ BS476 pt6	Rating	Typical application
"SAB"	SAB	Class 3	-	SAB Class 3	Outer sheet
"Class 1"	SAA	Class 1	-	SAA Class 1	Liner sheet
"Class 0"	SAA	Class 1	Class 0	SAA Class 0	Circulation spaces & external walls <1m from boundary or >18m high

(Certificates from independent laboratories are available to confirm these fire ratings)

For full details see Technical Bulletin 106.

The fire rating of Trilite GRP rooflight sheets is printed on each rooflight; in addition a coloured tracer is incorporated to identify the fire rating:

- SAB Class 3 are identified with a blue tracer
- SAA Class 1 are identified with a red tracer
- SAA Class 0 are identified with a red and yellow tracer

Transmission values

Rooflight application	U value	T _v visible light transmission	G-value total solar transmittance	Shading Coefficient
- Single skin	5.7 W/m ² K	0.78	0.76	0.87
- Triple skin - site assembled (Trilite 2.4 / Cleartherm2 / Trilite 1.8)	1.3 W/m ² K	0.55	0.51	0.58
- Triple skin - site assembled (triple skin GRP)	2.0 W/m ² K	0.52	0.54	0.62

Physical properties

TENSILE STRENGTH 90 MPa	BARCOL HARDNESS 40 - 50	COEFFICIENT OF LINEAR EXPANSION 22 x 10 ⁻⁶ / °C
FLEXURAL STRENGTH 180 MPa	FLEXURAL MODULUS 6600 MPa	SERVICE TEMPERATURE -20°C to 80°C
FIXING PULL-OUT LOAD 29mm washer: 1160 N	GLASS CONTENT 33%	



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