

**Product Data Sheet - Trilite 1.8 corrugated GRP (CE18 & CE18E)** Page 1 of 2

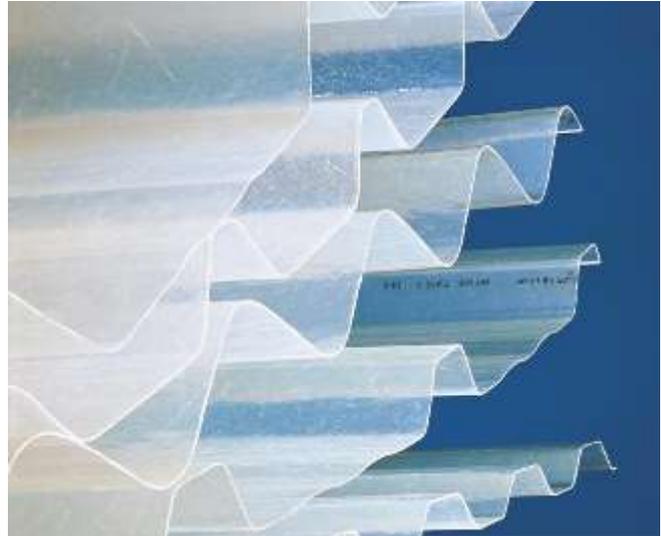
**Product Description**

Trilite 1.8 rooflights are corrugated translucent GRP sheets; they weigh 1.8 kg/m<sup>2</sup>, and are approximately 1.0mm 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 1.8 rooflights are available to match most corrugated profiles for roof or wall, and are typically used in site assembled applications in combination with other grades of Trilite GRP sheet.

**BBA Approval**

Trilite 1.8 has full BBA approval and is certified under 04/4114.



**Safety Requirements / CDM Regulations**

Trilite 1.8 rooflights can achieve Class B non-fragility to ACR[M]001 in combination with other rooflight skins. They meet minimum industry guidelines (as defined in NARM Technical Document NTD03):

	Classification <sup>a</sup>	Expected period of non-fragility <sup>b</sup>
As site assembled outer:		
- over Trilite 2.4 liner	Class B	5 - 20 years
- over Trilite 3.0 liner	Class B	25 years

<sup>a</sup> when installed at purlin centres of 0.6 - 2.0m with a roof system which has been determined (without rooflights) to achieve an equal or better non-fragility classification

<sup>b</sup> when all other components have been specified accordingly and it has been demonstrated that the roof system (without rooflights) will retain the same non-fragile classification for the same period  
PLEASE REFER TO NARM NTD03 FOR FULL DETAILS AND CONDITIONS

Trilite 1.8 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 1.8 rooflights have a life span in excess of 25 years. They have Superlife™ surface protection and UV stabilised resin system to protect against discolouration (yellowing)<sup>c</sup> and degradation which would otherwise be caused by UV exposure and will prevent significant discolouration for at least 20 years.

<sup>c</sup> 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 1.8 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 and are classified CE18<sup>d</sup>. Outer sheets also incorporate our Superlife UV protective surface and are classified CE18E<sup>d</sup>.

<sup>d</sup> as defined in National Annex to BS EN 1013

**Coloured Sheet**

Trilite 1.8 is available as translucent coloured sheet or opaque for specific applications<sup>e</sup>.

<sup>e</sup> please note: some colour pigments can fade over time particularly in translucent sheets, and long term colour stability cannot be guaranteed; please consult BMDS for full details

**Manufacture**

Trilite 1.8 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 (typically 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 pt 6	Rating	Typical application
"SAB"	SAB	Class 3	-	<b>SAB Class 3</b>	Outer sheet
"Class 1"	SAA	<b>Class 1</b>	-	<b>SAA Class 1</b>	Liner sheet
"Class 0"	SAA	Class 1	<b>Class 0</b>	<b>SAA Class 0</b>	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	Tv visible light transmission	G value total solar transmittance	Shading Coefficient
- Single skin	5.7 W/m <sup>2</sup> K	0.85	0.83	0.95
- Triple skin - site assembled (Trilite 2.4 / Cleartherm / Trilite 1.8)	1.3 W/m <sup>2</sup> K	0.58	0.55	0.63
- Triple skin - site assembled (triple skin GRP)	2.0 W/m <sup>2</sup> K	0.55	0.57	0.66

## Physical Properties

TENSILE STRENGTH 90 MPa	BARCOL HARDNESS 40 - 50	COEFFICIENT OF LINEAR EXPANSION 22 X 10 <sup>-6</sup> /°C
FLEXURAL STRENGTH 180 MPa	FLEXURAL MODULUS 6600 MPa	SERVICE TEMPERATURE -20°C TO 80°C
FIXING PULL-OUT LOAD 29mm washer: 700 N	GLASS CONTENT 33%	



Daylight Systems



### TECHNICAL SUPPORT:

The manufacturer operates a policy of continuous product improvement, and reserves the right to alter specifications at any time without notice. Every effort has been taken to ensure all details contained in this document are correct at the time of going to press but this document should be used only as a guide and does not in any way form part of a contract or warranty. It is the customer's responsibility to ensure that the product is suitable for the actual conditions of use, which are beyond the control of the manufacturer.