



marlon **st**Blue

Active Temperature Control

MULTIWALL POLYCARBONATE SHEET WITH IR HEAT BLOCK

MarlonSTBlue multiwall polycarbonate sheet with Infra Red (IR) Heat Block provides cool naturally daylit interiors without the heat build up normally associated with large areas of glazing. The advanced heat controlling technology has been designed to cleverly block the solar radiation from the sun without impacting on light transmission. This combined with all of the typical characteristics of marlon polycarbonate makes MarlonSTBlue IR Heat Block the ideal solution for a number of glazing and roofing applications.



OPTIONS

- **Sevenwall:** 35mm
- **Special layers:** Single sided UV protection

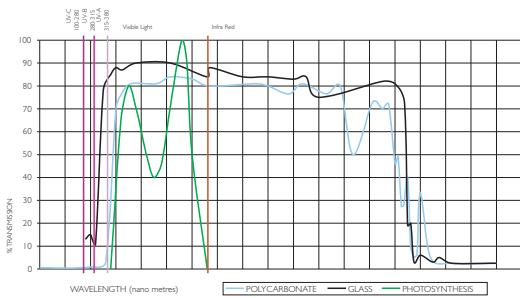
MAIN BENEFITS

- Reduces temperatures by 7°C
- Cool naturally daylit interiors
- Good natural light transmission
- Prevents heat build up
- Damage and impact resistance
- Added Longlife UV protection
- Excellent fire performance
- 10 year warranty

APPLICATIONS

- Conservatories
- Rooflights
- Canopies
- Vertical glazing

ELECTROMAGNETIC SPECTRUM

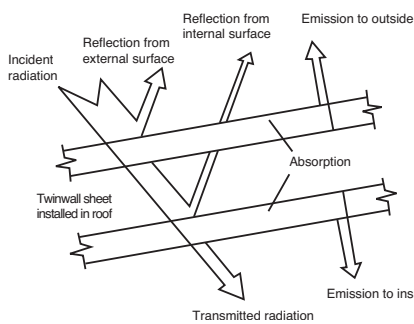


UV LIGHT
Harmful Ultra violet radiation

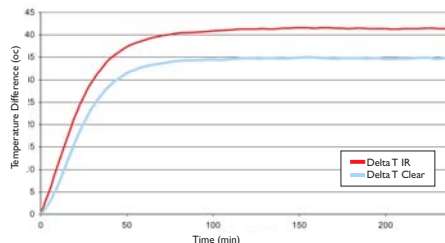
VISIBLE LIGHT
Makes up the colours in a rainbow and includes Photosynthetic Active Radiation (PAR) used by plants for healthy growth

INFRARED LIGHT
Near infrared radiation that carries pure heat energy from the sun

TRANSMISSION, REFLECTION AND ABSORPTION OF LIGHT BY POLYCARBONATE SHEETING



IR BLOCKER TEMPERATURE REDUCTION GRAPH



Graph compares the temperature rise in a room where the roof is glazed with clear Marlon ST and clear MarlonSTBlue with IR Heat Block.



STRUCTURES

STRUCTURE	SHEET THICKNESS mm	RIB SPACING mm	MAXIMUM SHEET WIDTH mm	WEIGHT g/m ²	U-VALUE W/m ² K	FALLING DART Nm
SEVENWALL	35	20	2100	3900	1.2	>27

PHYSICAL PROPERTIES

PROPERTIES	TEST METHOD	VALUE	UNITS
Mechanical Properties			
Tensile strength at yield	DIN 53455	>60	MPa
Tensile Strength at break	DIN 53455	>70	MPa
Elongation at yield	DIN 53455	6-8	%
Elongation at break	DIN 53455	>100	%
Modulus of elasticity	DIN 53457	>2300	MPa
Charpy notched impact strength	DIN 53453	>50	kJ/m ²
Physical Properties			
Specific gravity	DIN 53479	1.20	g/cm ³
Refractive index nD25	DIN 53491	1.586	
Water absorption, 24h @23°C	DIN 53495	0.35	%
Water permeability (thickness 1mm)	DIN 53122	<2.28	g/m ²
Thermal Properties			
Softening temperature Vicat 'B'	DIN 53460	148	°C
Deflection temperature, load 1.8MPa	DIN 53461	142	°C
Linear thermal expansion	DIN 53752	6.8X10 ⁻⁵	m/m.K
Thermal conductivity	DIN 52612	0.2	W/m.K
Maximum service temperature		Permanent 100	°C
- no loading		Short Term 130	°C

ACCESSORIES

- U profiles
- F profiles
- Aluminium Glazing Bars
- Aluminium Glazing Tape
- Ventilating Tape
- Flashing Tape
- Fixings
- Silicone Sealer

FIRE PERFORMANCE

Marlon ST will in most cases meet the following classifications

TEST METHOD	CLASSIFICATION
BS476 Part 7	Class I
EN 13501	B-s1, d0

Classification is subject to structure and thickness. For further details please contact our technical department.

WARRANTY



Marlon polycarbonate is also available in a range of flat, corrugated and corrugated multiwall sheet options. A range of accessories is also available. For further details please visit our website.



Plastic Sheets

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