



ENERGY EFFICIENT MULTIWALL POLYCARBONATE SHEET

The combination of quality light transmission and high thermal insulation provided by Marlon ST Energy Efficient structures provides a greener alternative to artificial lighting and promotes more efficient heating and cooling. Available in a range of structures up to 55mm achieving U-values as low as 0.83W/m²K* Marlon ST is one of the most energy efficient glazing materials available, with better insulation properties than most triple glazing or argon filled double glazing, this glazing material offers a highly effective means of reducing the energy consumption and carbon footprint of a building.

*U-value of 0.83W/m²K achieved with Marlon ST 55mm tenwall sheet



marlon st

LONGLIFE

OPTIONS

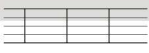
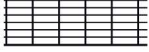

- **Fivewall:** 16mm, 25mm
- **Sevenwall:** 32mm, 35mm
- **Tenwall:** 32mm, 35mm, 40mm, 55mm
- **Colour:** Clear, Bronze, Opal
- **Special layers:** Double sided UV protection; Dual Tints; IR Heat Block

MAIN BENEFITS

- Thermally insulating achieving U-Values as low as 0.83W/m²K
- Brings in high levels of natural light
- Reduces the need for artificial lighting
- Energy saving
- Helps to reduce the overall carbon footprint of a building
- Light weight and easily handled
- High optical clarity
- Damage and impact resistance
- Weatherable Longlife UV protection
- Excellent fire performance
- 10 year warranty

APPLICATIONS

- Conservatories
- Rooflights
- Vertical glazing

U-VALUES			
STRUCTURE		SHEET THICKNESS	U-VALUE W/m ² K
FIVEWALL		16	1.9
		25	1.6
SEVENWALL		32	1.25
		35	1.2
TENWALL		32	1.14
		35	1.08
		40	0.99
		55	0.83

STANDARD DIMENSIONS					
STRUCTURE	SHEET THICKNESS mm	RIB SPACING mm	MAXIMUM SHEET WIDTH mm	WEIGHT g/m ²	FALLING DART Nm
Fivewall	16	20	2100	2700	>27
Fivewall	25	20	2100	3400	>27
Sevenwall	32	20	2100	3600	>27
Sevenwall	35	20	2100	3900	>27
Tenwall	32	20	1250	3600	>27
Tenwall	35	20	1250	3900	>27
Tenwall	40	20	1250	4200	>27
Tenwall	55	20	1250	5000	>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 1.81MPa	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	
<ul style="list-style-type: none"> U profiles H profiles Polycarbonate Connecting Profiles F profiles Aluminium Glazing Bars 	<ul style="list-style-type: none"> 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.



BRETT MARTIN
Plastic Sheets

livingspace
multi-wall polycarbonate sheeting

Tel 01536 446980
Fax 01536 446981
sales@livingspaceltd.co.uk
www.livingspaceltd.co.uk

All reasonable care has been taken in the compilation of the information contained within this literature. All recommendations on the use of our products are made without guarantee as conditions of use are beyond the control of Brett Martin. It is the customer's responsibility to ensure that the product is fit for its intended purpose and that the actual conditions of use are suitable. Brett Martin pursues a policy of continuous product development and reserves the right to amend specifications without prior notice. Non standard and special options are subject to minimum order quantities. The photographs used are for illustration purposes only and simply indicate possible uses of Marlon ST multiwall sheet. Marlon is a registered trademark of Brett Martin Ltd.