



## MULTIWALL POLYCARBONATE SHEET WITH CONDENSATION CONTROL TECHNOLOGY

Marlon ST multiwall polycarbonate sheet with an anti-drip surface layer technology is an exceptional greenhouse glazing material which provides the optimum environment for the development of healthy plants and maximum crop yields. Marlon polycarbonate is 200 times stronger than glass providing excellent protection against hailstones, vandalism and accidental damage. The anti-drip surface layer prevents the formation of water droplets and reduces condensation and associated fogging, improving light transmission in colder weather and eradicating spoilage caused by dripping. Co-extruded UV protection acts to block the damaging UV radiation whilst transmitting the natural solar light required for photosynthesis.



# marlon<sup>st</sup>

LONGLIFE

### OPTIONS

- **Twinwall:** 6, 8, 10mm\*
- **Fourwall:** 8, 10mm\*
- **Triplewall:** 16mm\*
- **Colour:** Clear, opal
- **Special layers:** Double sided UV protection

\* Other thicknesses and structures are available with Condensation Control. Subject to request.

### MAIN BENEFITS

- Anti-drip surface layer
- Transmits natural solar light (PAR)
- Aides healthy plant development
- Eradicates spoilage caused by dripping
- Controls condensation
- Blocks out harmful UV radiation
- Weatherable Longlife UV protection
- Superior impact resistance
- Excellent fire performance
- Lightweight yet rigid
- 10 year warranty

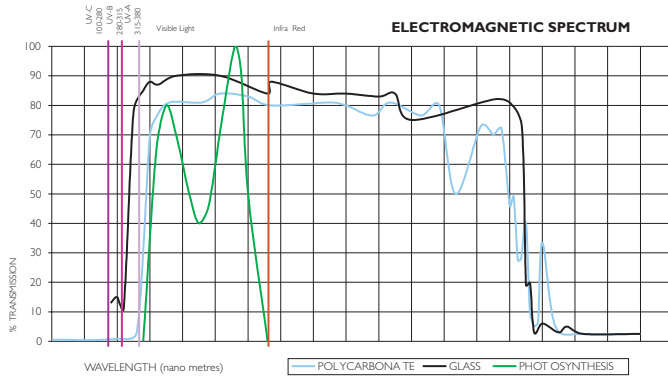
### APPLICATIONS

- Commercial greenhouses
- Domestic greenhouses
- Garden Centres

### ACCESSORIES

- U profiles
- H profiles
- Polycarbonate Connecting Profiles
- F profiles
- Aluminium Glazing Bars
- Aluminium Sealing Tape
- Ventilating Tape
- Flashing Tape
- Fixings
- Silicone Sealer

## 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



## COLOURS AND LIGHT TRANSMISSION

Light transmission (%) DIN 5036

STRUCTURE	CLEAR 'S'	BRONZE 'B'	OPAL 'V'
6mm Twinwall	82	26	39
8mm Twinwall	82	20	39
10mm Twinwall	82	33	40
16mm Triplewall	77	18	42
8mm Fourwall	74	21	39
10mm Fourwall	74	30	34

## STRUCTURES

Structure	Sheet Thickness mm	Rib Spacing mm	Maximum Sheet Width mm	Weight g/m <sup>2</sup>	U-Value W/m <sup>2</sup> K	Falling Dart Nm
TWINWALL	6	6	2100	1300	3.7	27
	8	10	2100	1500	3.4	>27
	10	10	2100	1700	3.2	>27
TRIPLEWALL	16	20	2100	2700	2.4	>27
FOURWALL	8	12.5	2100	1500	2.8	>27
	10	12.5	2100	1700	2.5	>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 <sup>2</sup>
Physical Properties	Specific gravity	DIN 53479	1.20 g/cm <sup>3</sup>
	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 <sup>2</sup>
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 <sup>-5</sup> m/m.K
	Thermal conductivity	DIN 52612	0.2 W/m.K
	Maximum service temperature - no loading		Permanent 100 °C Short Term 130 °C



## FIRE PERFORMANCE

Marlon ST will in most cases meet the following classifications

TEST METHOD	CLASSIFICATION
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.



EPSE

narm  
National Association of Rooflight Manufacturers



Plastic Sheets

Tel +44 (0) 28 9084 9999  
Fax +44 (0) 28 9083 6666  
mail@brettmartin.com

www.brettmartin.com

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