APPLICATIONS

GLAZING CONSTRUCTION AGRICULTURE

marlon st
LONGLIFE

MULTIWALL POLYCARBONATE SHEET SUITABLE FOR COLD CURVING

Marlon ST Longlife multiwall sheet is available in a range of thicknesses from 4 -16mm which are ideally suited to cold curving into arches. The multiwall sheets can be easily curved for the formation of architectural rooflights, including arched walkways, barrel vaults and domed rooflights. Sheets must always be bent longitudinally, never across the width of the sheet, for a roofing application i.e. the ribs must run over the top of the curve.

OPTIONS

- **Thicknesses:** 4, 6, 8, 10 and 16mm
- **Structures:** Twinwall, Triplewall, Fourwall, Fivewall,
- **Tints:** Clear, Opal, Bronze
- **Protective Coatings:** Double sided UV protection, Condensation Control

MAIN BENEFITS

- Strong and flexible
- Easy to cold bend into arches
- High natural light transmission
- High optical clarity
- Energy saving
- Light weight and easy to handle
- Thermally insulating
- Damage and impact resistance
- Weatherable Longlife UV protection
- Excellent fire performance
- 10 year warranty

APPLICATIONS

- Curved rooflights
- Canopies
- Barrel vaults
- Arched walkways
- Industrial rooflights
- Covered walkways
- Swimming pool covers
- Greenhouses

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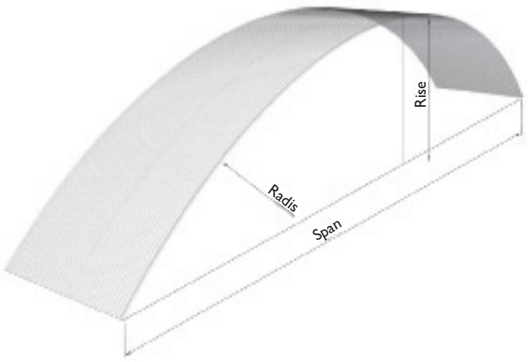
COLD CURVING RECOMMENDATIONS

SHEET THICKNESS	MINIMUM RECOMMENDED RADIUS (MM)
4mm Twinwall	600
6mm Twinwall	900
8mm Twinwall	1200
10mm Twinwall	1500
16mm Twinwall	2400
16mm Fivewal	3200
25mm	Not recommended



STRUCTURES

STRUCTURE	SHEET THICKNESS mm	RIB SPACING mm	MAXIMUM SHEET WIDTH mm	WEIGHT g/m²	U-VALUE W/m²	FALLING DART Nm
TWINWALL	4	6	2100	800	3.9	21.3
	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
FIVEWALL	16	20	2100	2700	1.9	>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/m²
Physical Properties	Specific gravity	DIN 53479	1.20	g/cm³
	Refractive index nD25	DIN 53491	1.586	
	Water absorption, 24h @23°C	DIN 53495	0.35	%
	Water permeability (thickness1mm)	DIN 53122	<2.28	g/m²
Thermal Properties	Softening temperature Vicat 'B'	DIN 53460	148	°C
	Deflection temperature, load 1.8IMPa	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

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

BRETT MARTIN POLYCARBONATE 10 YEAR PRODUCT QUALITY WARRANTY

REMEMBER

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.

ACCESSORIES

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

EPSE narm BSI OTHER

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