

# UltraLite<sup>®</sup>

Premium brand of the makers of Polymac

## MULTIWALL

Applications:



ROOFING



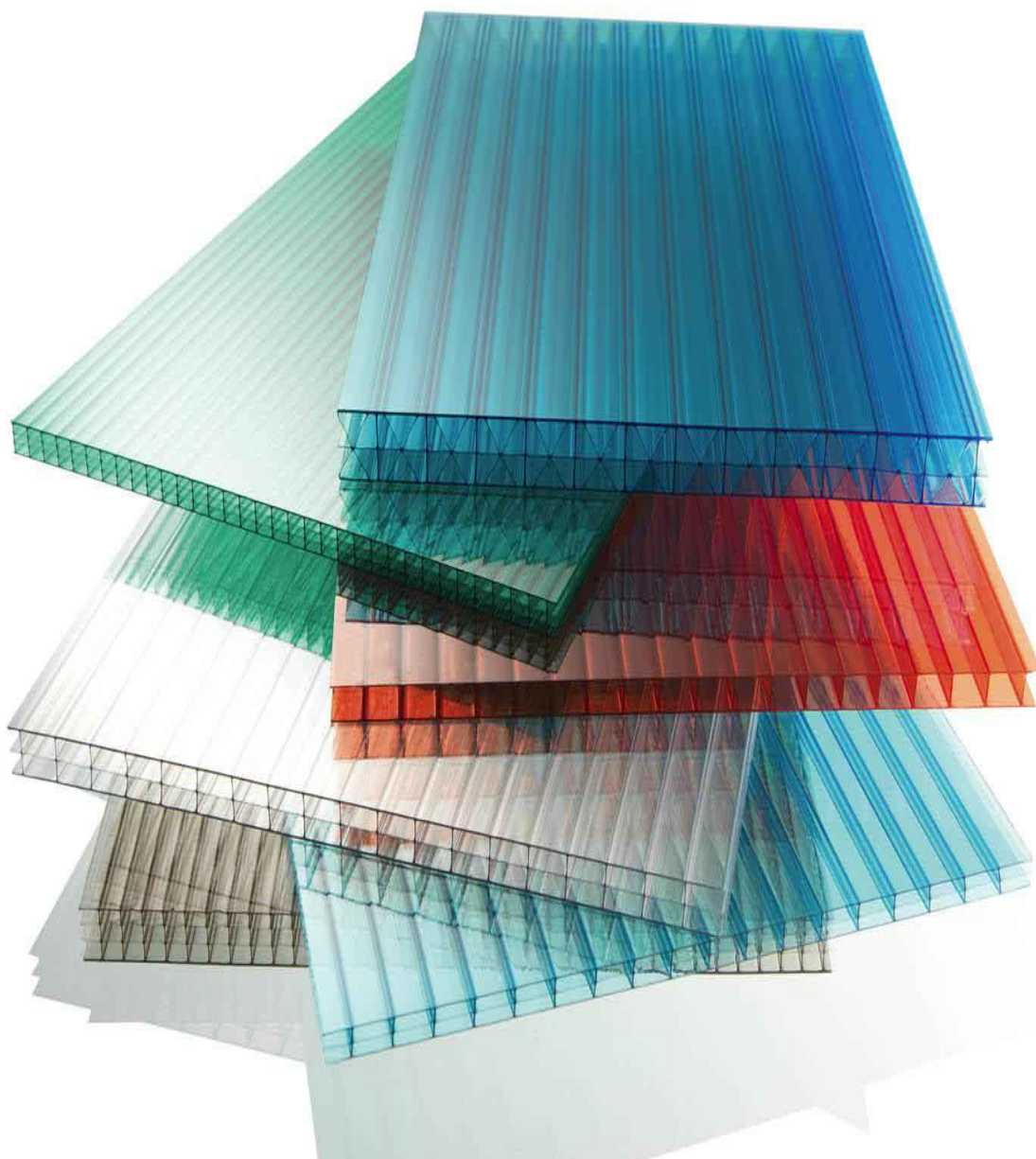
FAÇADE



INTERIOR



OUTDOOR



# MULTIWALL POLYCARBONATE SHEETS

POLYMAC Multi-wall Polycarbonate sheets are Hollow Polycarbonate Sheets designed for harvesting day light. Advanced constructions of internal walls and chambers give excellent insulation properties and impact strength 250 times that of glass. A wide selection of colors, sizes and configurations are available. Multiwall ensures high impact strength, clarity and excellent weather resistance.

## **APPLICATIONS**

Skywalks / Roofs / Facade

Window replacements

Shower enclosures

Green-houses

Partitions

Light covers

Carports

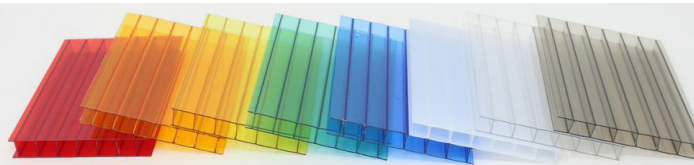


Product Structure	Thickness (mm)	Width		Weight (KG/M2)	U Value (W/M2°K)
		1220	2100		
Twin Wall	4	✓	✓	0.8	3.8
	4.5	✓	✓	1.1	3.7
	6.0	✓	✓	1.3	3.5
	8.0	✓	✓	1.5	3.3
	10.0	✓	✓	1.7	2.9
Triple Wall	10	✓	✓	2.0	2.7
	16	✓	✓	2.7	2.3
Four Wall	10	✓	✓	1.7	2.3

## **BENEFITS**

- LIGHT WEIGHT
- FLAME RETARDANT
- FLEXIABLE
- IMPACT RESISTANCE
- ENERGY EFFICIENCY
- TRANSPARENCY
- EASE OF MAINTENANCE
- ULTRAVIOLET BARRIER
- THERMAL PROPERTIES

## COLOURS & LIGHT TRANSMISSION%



Product	Clear	Bronze	Opal	Green	Blue
Shading Co Efficient	1.0	0.81	0.74	0.65	0.75
<b>Twin Wall</b>					
4 mm	80%	35%	30%	30%	35%
4.5 mm	80%	35%	30%	30%	35%
6 mm	80%	35%	20%	30%	35%
8 mm	80%	35%	35%	30%	35%
10 mm	77%	35%	35%	30%	35%
<b>Triple Wall</b>					
10 mm	75%	35%	35%	30%	35%
16 mm	75%	35%	35%	30%	35%
<b>Four Wall</b>					
10 mm	75%	35%	35%	30%	35%

## STANDARD RESIN PROPERTIES

Thermal Properties	Standard	Units	Value	Conditions
Coefficient of Linear Thermal Expansion (Parallel)	ISO 113569-1,-2	10 <sup>-4</sup> /K	0.65	23 - 55°C
Thermal Conductivity, Cross Flow	ISO 8302	W/(m-K)	0.20	23°C, 50% r.h.
Oxygen Index	ISO 4589-2	%	28	Method A
Relative Temperature Index (Tensile Strength)	UL 746B	°C	80	0.75mm
Burning Rate (Us-Fmvss)	ISO 3795	mm/min	Passed	>= 1.0mm

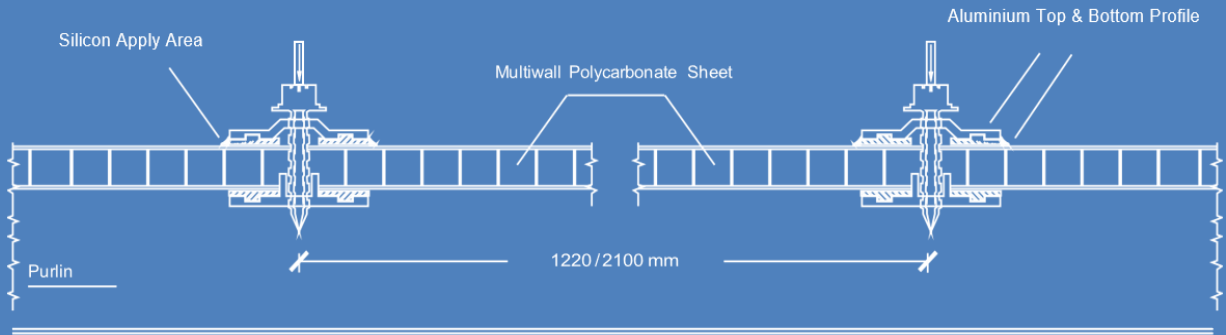
Mechanical Properties	Standard	Units	Value	Conditions
Tensile Stress At Yield	ISO 527-1,-2	MPa	66	50mm/min
Tensile Stress At Break	ISO 527-1,-2	MPa	70	50mm/min
Flexural Strength	ISO 178	MPa	100	2mm/min
Flexural Strain At Flexural Strength	ISO 178	%	7	-
Impact Strength (Izod)	ISO 7391	kJ/m <sup>2</sup>	65 P	23°C, 3mm
Ball Indentation Hardness	ISO 2039-1	N/mm <sup>2</sup>	115	-

Visual Properties	Standard	Units	Value	Conditions
Refractive Index	ISO 489	-	1.586	Procedure A
Luminous Transmittance	ISO 13468-2	%	88	3mm
Haze For Transparent Materials	ISO 14782	%	<0.8	3mm
Water Absorption	ISO 62	%	0.3	Water at 23°C

Other Properties	Standard	Units	Value	Conditions
Density	ISO 1183-1	kg/m <sup>3</sup>	1200	-

## INSTALLATION

POLYMAC multiwall versatile polycarbonate glazing system is advanced in design yet simple to install. The sheets simply slot into a h-bar ready for fixing to the structure. A two-piece h-bar is also available for increased flexibility. The glazing bar system allows for thermal expansion through the sheet, hence the structure is 100% water tight.



## ACCESSORIES

### Aluminum One Piece H - Bar

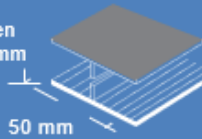
#### STANDARD COLORS:

Mill Finish, Pearl White, Black, AndonisedBronze, Primrose

#### STANDARD LENGTHS:

3m, 4m & 7m

Dimension when connected 16 mm



### Edge U Sealing Profile Polycarbonate

#### STANDARD COLORS:

Clear, Bronze, Opal

#### STANDARD LENGTHS:

1210 mm & 2100 mm



Seals the edges of the multiwall sheet to avoid entry of water / dust

### Aluminum Two Piece H - Bar

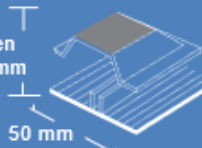
#### STANDARD COLORS:

Mill Finish, Pearl White, Black, AndonisedBronze, Primrose

#### STANDARD LENGTHS:

3m, 4m & 7m

Dimension when connected 16 mm



### Joint H Profile Polycarbonate

#### STANDARD COLORS:

Clear, Bronze, Opal

#### STANDARD LENGTHS:

5800 mm & 11800 mm



To cover & join 2 multiwall sheets from its edges

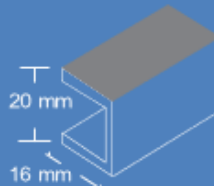
### Aluminum End Cap

#### STANDARD COLORS:

Mill Finish, Pearl White, Black, AndonisedBronze, Primrose

#### STANDARD LENGTHS:

1220 mm & 2100 mm



### Breather Tape

#### STANDARD COLORS:

Brown

#### STANDARD LENGTHS:

50 m

### Foil Tape

#### STANDARD COLORS:

Silver

#### STANDARD LENGTHS:

50 m



Prevent moisture & dust from entering multiwall flutes

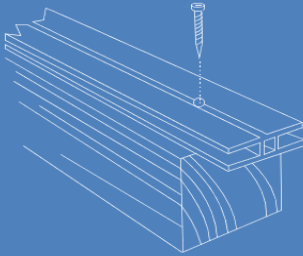
## INSTALLATION INFORMATION

1. Always install Polymac Multiwall with vertical ribs in glazing & cladding applications and in the direction of the slope for roofing applications. This will ensure easy drainage of moisture in case of condensation. Improper installation can lead to accumulation of moisture within the flutes & promote the growth of fungus and moss, especially in tropical regions.

2. Follow recommendations for rafter and purlin spacing as specified for Polymac Multiwall sheets.

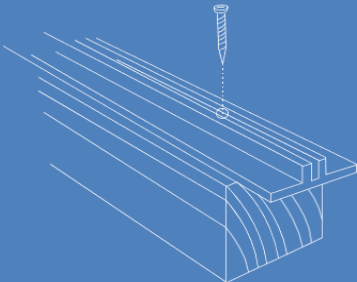
3. Polymac Multiwall sheets can be cut using a sharp blade, hand saw or a circular saw with a fine tooth blade suitable for plastics. Dust particles (swarf) should be cleared from the flutes using compressed air (or sucked out with a vacuum cleaner.) All cut edges should be free of notches. In case of reducing the width of Polymac Multiwall sheets, trimming should be done as close as possible to the previous rib so that the optimum support is achieved.

4. Remove masking partially, from the edges of the sheet and apply a breather tape to the top and foil tape to the bottom ends.



### 5. Two Piece H Bar System

Place the first and second measured and cut base glazing bars on the structure.



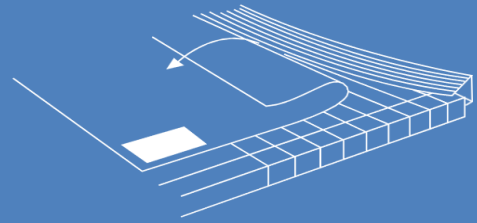
### 6. One Piece H Bar System

Secure H Bar to the purlin or rafter with a screw (not exceeding 12g) at no greater than 1200mm apart.

### Two Piece H Bar System

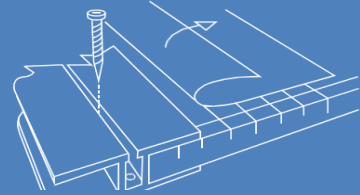
Fasten the Base Glazing Bars to the rafter with self fastening screws (10 gauge - 16 tpi) at no greater than 500 mm apart by fixing through the center of the base glazing bar and securing it firmly onto the supporting structure. (Self fastening screws for wood are 30 mm long; self fastening screws for metal are 21 mm in length)

6. Pull the masking back on the sides of the sheet and place the H Bar C gasket long the whole length of both sides of the sheet. Place one side of the sheet into the H Bar.



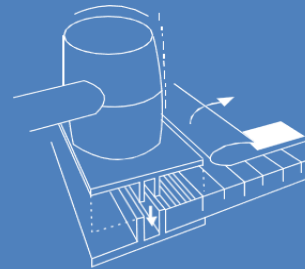
### 8. One Piece H Bar System

Place the next bar on the other side and secure it to the support structure.



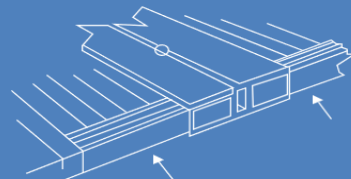
### Two Piece H Bar System

Place the sheet between the two secured glazing bars. Position the first top glazing bar in line with the base. Secure the two bars using a rubber mallet. Once the next sheet is installed, the second and subsequent top glazing bars can be fitted.

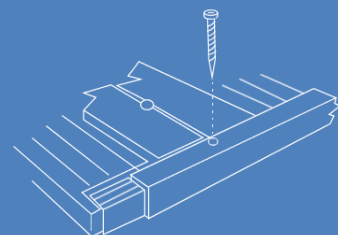


9. Repeat steps 6-8 until sheets are in position.

10. When using Aluminum End caps, place the gasket along the end of the Multiwall sheet only, stopping the H Bar.



10. Fasten the Aluminum End Caps with a screw to the H Bar. On the underneath of the Aluminum End Cap drill a small weep hole where it meets the H Bar.



11. Use Aluminum/ Polycarbonate End Cap to close off the open edge of the first and last glazing bars.

# UltraLite®

VIJAY AGENCY

289/3, TIMBER MARKET ROAD, PUNE-411042

WWW.VIJAYAGENCY.CO.IN

WHATSAPP - 8080363744,