



YOUR PARTNER FOR GROWTH, GAIN & GOODWILL

CORRUGATED POLYCARBONATE SHEETS

Tilara Corrugated Polycarbonate Sheets can be made from Solid Clear & Embossed Polycarbonate Sheets and offer a wide range of natural lighting options.

Tilara Corrugated Polycarbonate Sheets have been found to deliver energy savings in terms of reduction in electricity consumption. The average payback period is estimated to be between 10 to 12 months. Tilara Corrugated Polycarbonate Sheets carry a 10 Years Conditional Warranty. Your assurance of saving for years to come. Plus, your contribution towards a Greener Planet Earth!!

APPLICATIONS

- | | |
|--|--|
| • Canopies and shelters for car parks, swimming pools, walkways etc. | • Skylights, rooflights and sidelights |
| • Construction and Industry | • Commercial greenhouses |
| • Architectural structures | • Garden centers |
| • Industrial facilities | • Agriculture |
| • Public buildings | • Partitions |



AGRICULTURE



CONSTRUCTION



DIY



ARCHITECTURE

AVAILABLE IN

Options: Embossed texture, Diamond texture, Matte texture, Single & Both sided UV Protection, V0(Fire Retardant)
Specials: Special transparent, translucent & opaque options are available on request

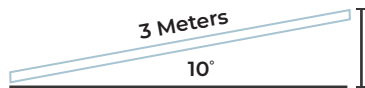
TYPE

Thickness: 0.8mm to 3mm
Color: Clear, Opal, Bronze, Green, Blue, Greenish Blue, Metallic Grey, Pencil Grey, Bhagwa
Width: Customizable

CORRUGATED SHEETS INSTALLATION TIPS

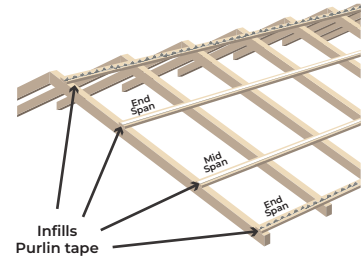
STEP 1

PURLINS & ACCESSORIES



Ensure that your roof pitch is at least 10°, i.e. 88mm. Rise per lineal meter. This will ensure adequate water run off.

Maximum Purlin Spacings		
Corrugated	End Span	Mid Span
Sinus	800mm	1000mm
Greca	900mm	1200mm
5 Rib	900mm	1200mm



STEP 2

Fixings

Corrugated	Fixing at	
	End Row	Mid Row
Sinus	Every 2 nd	Every 3 rd
Greca	Every 2 nd	Every 3 rd
5 Rib	ALL	

Overlap:

Sinus - 1 1/2 Corrugation



Greca - 1 Corrugation



5Rib - 1 Corrugation

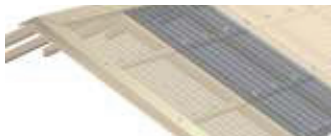


Prevailing
Wind Direction



STEP 3

Capping & flashings For installations



APEX ROOF - Fit the barge capping and ridge capping at the apex using the recommended fixing screws.



AGAINST A WALL/FASCIA - Fit the barge capping to the edge of the sheet and the apron flashing against the wall or fascia. Secure using the recommended fixing screws.



UNDER A GUTTER - Fit the back channel flashing with foam infill strips under the gutter prior to laying the sheets, and fit the barge capping to the edge of the sheet.



Important notes

Use only compatible accessories, including EPDM rubber washers, silicone sealants, sealing tapes, closure fixtures, etc. When installing clear Tilara® sheets onto wooden purlins, apply white acrylic paint or aluminum tape to the purlins to prevent overheating.



Cutting Tips

- Use jigsaw or circular saw with fine tooth blades.
- Apply high blade speed with moderate feeding rate.
- Support the sheets near the cutting line.
- Clean the duct and cutting chips after cutting.

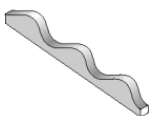


Fastening Tips

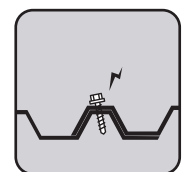
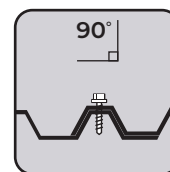
- Use adjustable electric screwdriver.
- The fastener must be installed perpendicular To Tilara® sheet.

Important: Do not over-tighten.

Shaped foam polyethylene (PE) sealing strip.



Silicone sealant.





TILARA® CORRUGATED POLYCARBONATE SHEETS

Extruded Polycarbonate Corrugated Sheets

Extruded Polycarbonate Corrugated Sheets are given their distinctive shapes or profiles at the time of being manufactured itself with the help of a set of integrated rollers which are engineered to impart the required shape at the time of extrusion itself.

Extruded Polycarbonate Corrugated Sheets have certain distinct advantages when compared with corrugated sheets manufactured by any other off-line manufacturing technique.

THE DISTINCT ADVANTAGES OF EXTRUDED POLYCARBONATE CORRUGATED SHEETS ARE:

- The Sheets are stress free and extremely stable
- Greater details in corrugated are possible which include baby ribs & Anti-capillary grooves
- Sheets can be manufactured to tailored lengths thereby reducing overlaps
- The sheets tend to retain their corrugated dimensions even when subjected to load
- The dimensions are consistent and ensure perfect nesting every time

However, the rollers that impart the permanent shapes to Extruded Polycarbonate Corrugated Sheets require large capital investment. Thus, a purchase commitment from the Customer is required to develop these rollers as and when required.

Product Data Sheet

	Test Conditions	Units	Standards	Makrolon Resin Value
Rheological Properties				
Melt volume - Flow rate	300° C; 1.2Kg	cm ³ /(10min)	ISO 1133	6
Melt Mass - Flow rate	300° C; 1.2Kg	g/(10min)	ISO 1133	6.5
Moulding shrinkage Parallel/normal		%	b.o ISO 2577	0.6-0.8
Mechanical Properties				
Tensile modulus	1mm/min	Mpa	ISO527	2350
Yield Stress	50mm/min	Mpa	ASTMD638	47
Yield Strain	50mm/min	%	ISO527-1;2	
Nominal tensile strain at break	50mm/min	%	ISO527	>50
Stress at break	50mm/min	Mpa	ISO527-1;2	70
Strain at break	50mm/min	%	b.o ISO527-1;2	120
Tensile Creep modulus	1 hr	Mpa	ISO899-1	2200
Tensile Creep modulus	1000h	Mpa	ISO899-1	1900
CHARPY Impact strength	23°C	KJ/M ²	ISO 179-1eU	NB
CHARPY Impact strength		KJ/M ²	ISO 179-1eU	NB
IZOD Notched impact strength	23°C; 3mm	KJ/M ²	b.o ISO 180-4A	58.4
IZOD Notched impact strength	-30°C; 3mm	KJ/M ²	b.o ISO 180-4A	16C(P)
Thermal Properties				
Glass transition temperature	10°C/min	°C	ISO 11357-1,-2	148
Temperature of deflection under load	1.80 MPa	°C	ISO 75-1;2	128
	0.45 MPA			140
Vicat Softening temperature	50 N, 50°C/h	°C	ISO 306	148
Co-efficient of linear thermal Expansion	23 to 55°C	10 ⁻⁴ /K	ISO 11359-1;-2	0.65
Burning Behavior UL 94 (UL Recognition)	1.5mm 0.75mm 10mm	Class	UL94	HB V-2 V-O(CL)
Oxygen index	Procedure A	%	ISO 4589-2	27
Glow wire test (GWFI)	1.5mm	°C	IEC 695-2-12	850
	2.0mm			850
	3.0mm			930
Electrical properties				
Relative permittivity	100 Hz		IEC 250	3.1
Relative permittivity	1 MHz		IEC 250	3.0
Dissipation factor	100 Hz	10 ⁻⁴	IEC 60250	5
Dissipation factor	1 MHz	10 ⁻⁴	IEC 60250	95
Volume resistivity		ohm. m	IEC 60093	1E14
Surface resistivity		ohm	IEC 60093	1E16
Electrical strength	1mm	kV/mm	IEC 60243-1	34
Comparative tracking index (CTI)	Solution A	Rating	IEC 112	250
Other properties				
Water absorption (saturation value)	Water at 23°C	%	ISO 62	0.30
Water absorption (equilibrium value)	23°C / 50% r.h	%	ISO 62	0.12
Density		Kg/M ³	ISO 1183-1	1200
Glass fiber content		%	ISO 3451-1	
Material Specific properties				
Refraction index	Procedure A	-	ISO 489	1.587

