



TILARA POLYPLAST PVT. LTD.



ENABLING TECHNOLOGY  
TO PLASTICS



## Introducing

**Tilara Polyplast Pvt. Ltd.** is into manufacturing Asia's largest & most favorable Extrusion Technology in Sheet Line with an avant-garde infrastructure and profoundly skilled experts. We specialize in making all kinds of Extrusion Plastic Sheets with range of products including **Polycarbonate Sheet, Acrylic Sheet, Polystyrene Sheet** (GPPS) and many more. Having 18 years of experience in Extrusion industry and state-of-the-art technology help us thrive quality at each level of operation.

Located in India's salient industrial zone – Rajkot, Gujarat, Tilara Polyplast Pvt. Ltd. is an **ISO 9001:2008** (Quality Management System) certified manufacturing company adhering to quality confirmation. MFI Test, Impact Test, Transmission test and Haze Test are part of our ongoing tests and daily routine to trace and improve vitality of TILARA POLYPLAST products.

Tilara Polyplast is also equipped with quality tech lab, technically sound team and in-house facility of **Thermoforming**.

**TPPL** (Tilara Polyplast Pvt. Ltd.) with its wisdom have incorporated best extrusion technology to help elevate the overall **shine** and **strength** of our entire product.

“ We are technology enablers for **plastic industry** and producing world class **extrusion sheet** having application in **industrial, commercial** and **residential** project. Our product is **innovative, durable, safer**, easy to handle and cost effective. ”

## Vision

### CORE PURPOSE:

"To Elevate the CUSTOMER by providing simple & innovative Solution"

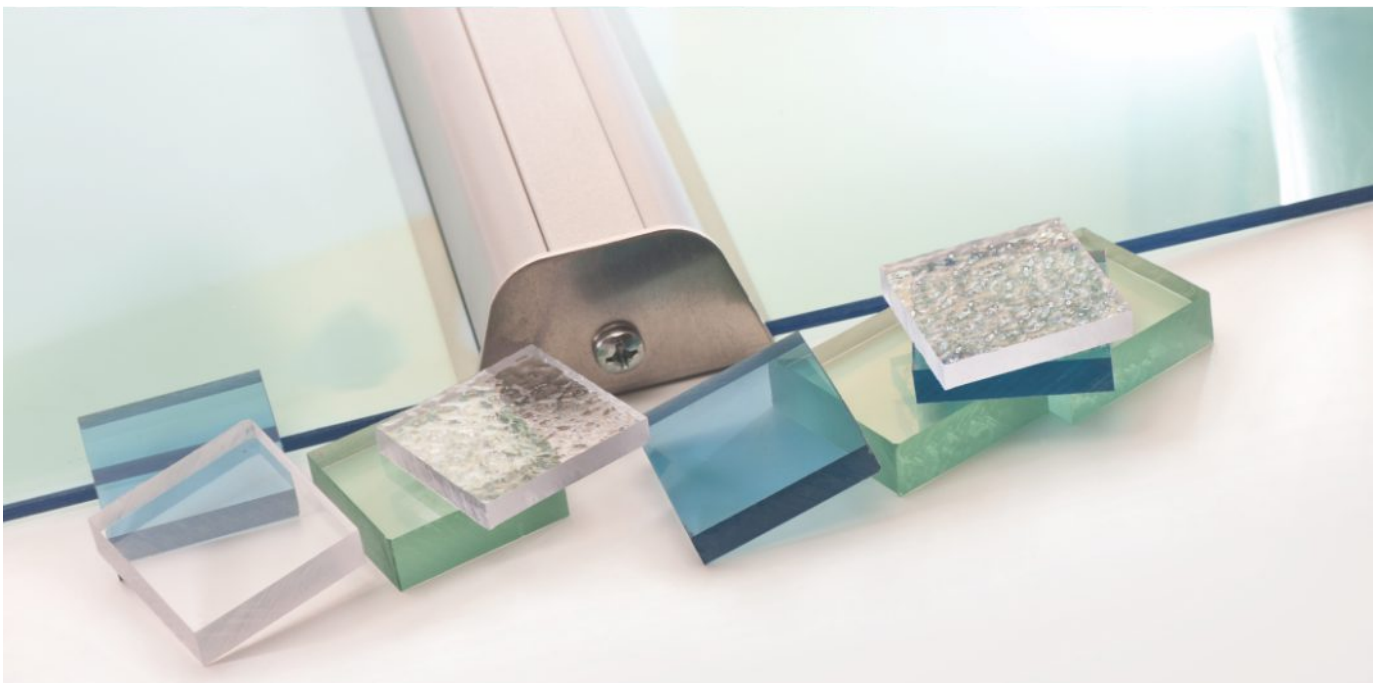
### CORE VALUES:

Respect for all | Leave our Mark | Passion | Innovation | Honesty

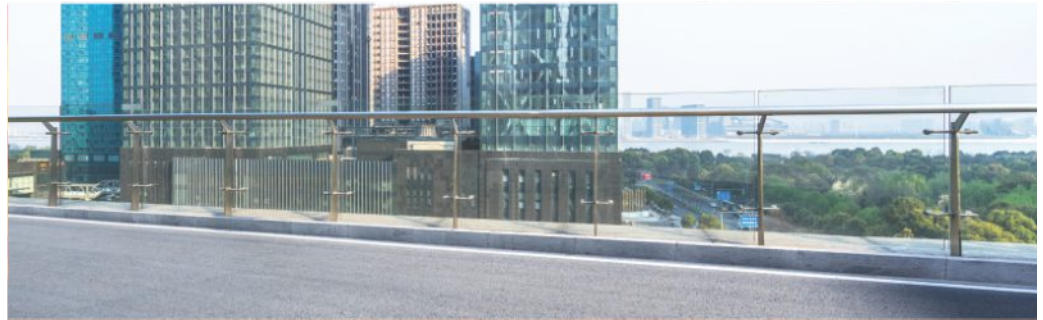
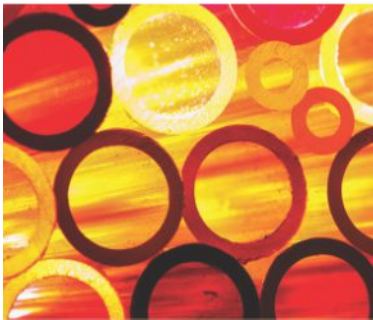
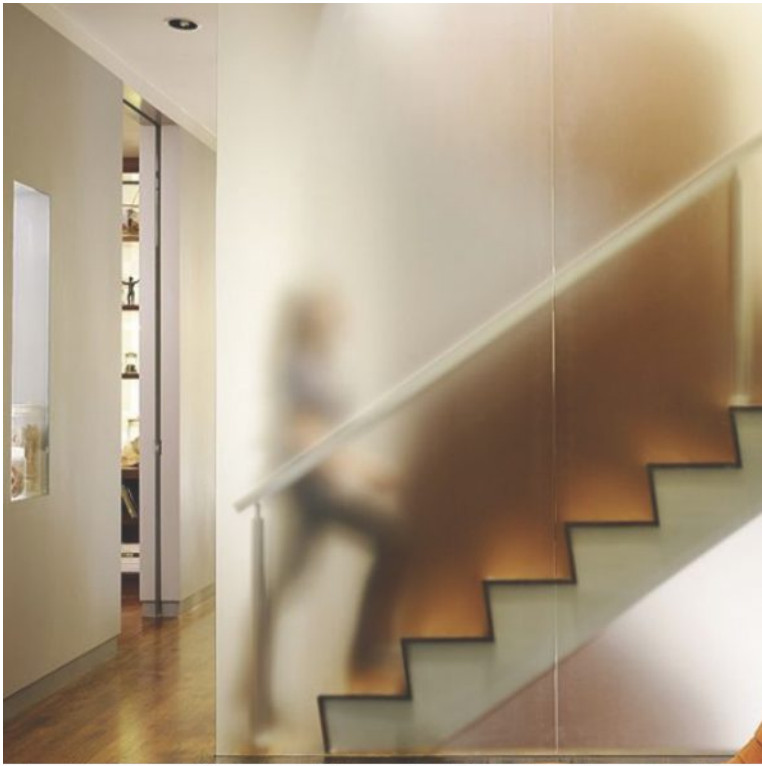
### BRAND PROMISE:

We jointly put an effort to scale up our leadership position in the market. We equally share the pain & gain together

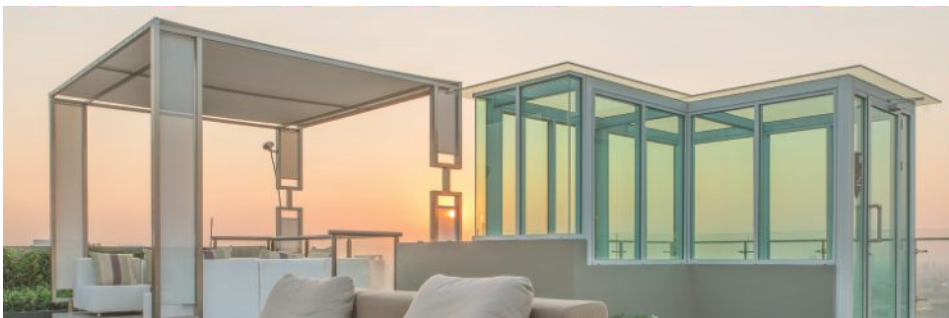








- TILARA® PC Compact Sheet/Roll
- TILARA® PC Embossed Sheet/Roll
- TILARA® Polycarbonate Hollow Sheet
- TILARA® Acrylic Sheet (PMMA)
- TILARA® GPPS Sheet
- TILARA® Beautification Sheet
- TILARA® Light Diffusion Sheet
- TILARA® Lighting Profile
- TILARA® Pipe and Rod



**TILARA Polycarbonate Solid Sheet** offers a unique combination of material properties that makes it superior to other thermoplastic material or glass, making it the ideal product for roofing, glazing and fabrication.

**PC Compact Sheet** has high clarity and good performance for application where good visibility is important. It also has excellent temperature performance which gives good fire properties, the material is even self-extinguishing. Compact PC is well suited for thermoforming or machining.

It provides unbeatable impact resistance, 200 times stronger than glass, providing protection against breakage and shattering. It easily withstands a blow of hammer, hence it is extremely suitable for use in safety glazing applications also in applications which require enhanced shatter resistance protective screening. Special resins are used when food approval or flame retardant characteristics are needed.

**PC embossed Sheet:** TILARA PC Embossed Sheet has several characters with high impact resistance, light weight, can be easy cold bend processed and hot molding. Hence, it can be widely used in construction and decorations.

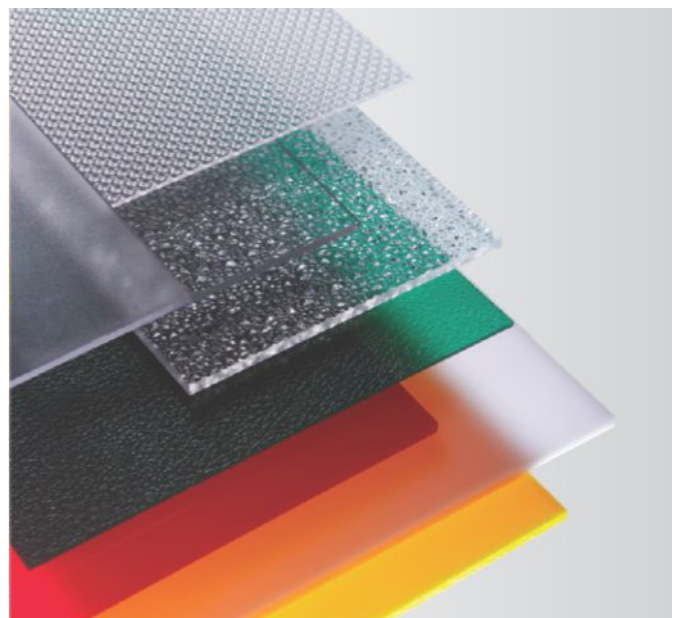
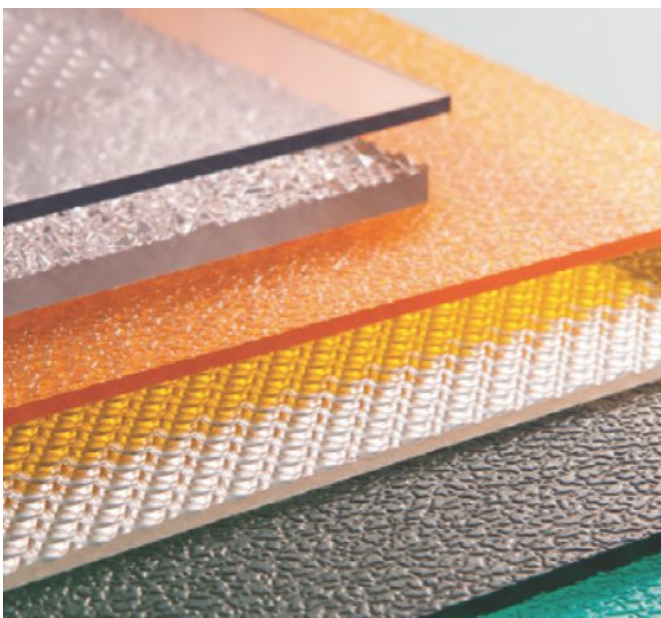
Tilara PC Solid Sheet and Roll is available in clear for maximum light transmission, clear embossed and a range of color including bronze, green, blue, opal and grey.

## FEATURES

- Extreme impact strength
- High transparency
- Easy installation
- Sound insulation
- Weather & UV- resistance
- Virtually unbreakable
- Low moisture absorption
- Easily machined, fabricate & thermoform
- Half the weight of glass
- ECO friendly material

## RELATED INDUSTRIES

- Building & Construction
- Printing & Fabrication
- Thermoforming & Machining
- Defence & Security Glazing
- Aerospace & Rail
- Signage & Advertising
- Mass Transportation & Automotive
- Lighting





# TILARA® PC Solid Sheet

## GENERAL

General Properties	Method	Units	Value
Density	ISO 1183	g/cm <sup>3</sup>	1.2
Light transmission (Depending on thickness)	ASTM D 1003	%	81 - 90
Refractive index	ISO 489		1,585

## MECHANICAL

General Properties	Method	Units	Value
Tensile Strength at yield	ISO 527-2	MPa	60
Tensile Modulus	ISO 527-2	MPa	2300
Elongation at break	ISO 527-2	%	>100
Elongation at yield		%	6
Flexural Modulus	ISO 178	MPa	2330
Charpy Un-notched	ISO 179	kJ/m2	Not Break
Izod Impact notched	ISO 180a	kJ/m2	>65

## THERMAL

General Properties	Method	Units	Value
Temp of deflection (HDT) Under load of 1.8MPa	ISO 75-1	°C	130
Vicat softening temp (50°C/h 50N)	ISO 306	°C	144
Thermal conductivity	DIN52612	W/m x °C	0.2
Coefficient of linear thermal expansion 0-50°C	ISO 11359	mm/(m x 1/°C)	0.070
GWFI (Glow-Wire Flammability index)	IEC60695-2	°C	900

## ELECTRICAL

General Properties	Method	Units	Value
Volume Resistivity	IES 60093	Ω x cm	3 x 10 <sup>14</sup>
Surface Resistivity, dry	IEC 60093	Ω	6 x 10 <sup>15</sup>
Dissipation Factor 1Mhz	IEC 60250		0.009
Dissipation Factor 100Hz	IEC 60250		0.0006

## COLORS AND TINTS

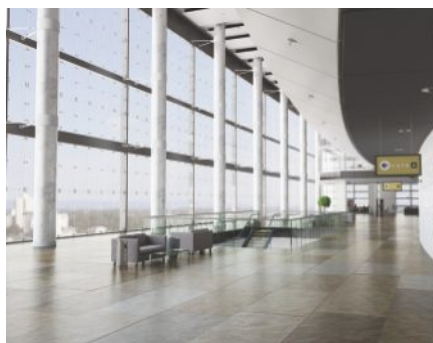
Clear, Opal, Bronze,  
Green, Blue & Grey

## DIMENSIONS

Width: up to 2100mm  
Thicknesses: 1mm to 12mm

## TYPE

**Options:** Embossed texture, Diamond texture, single sided UV protection & Both sided UV Protection,  
**Specials:** Special transparent, translucent & opaque options are available on request



**TILARA Polycarbonate Multiwall Sheet** is a remarkable insulation glazing material manufactured using latest technologies with quality basic materials with added co-extruded protection from the effective of UV wearing.

Polycarbonate is a unique engineering thermoplastic which combines a high level of mechanical, optical and thermal properties. The versatility of this material makes it suitable for many engineering applications. When extruded in multi-wall sheet form, it's optical and impact properties in particular render this material an ideal candidate for a wide range of roofing and cladding applications.

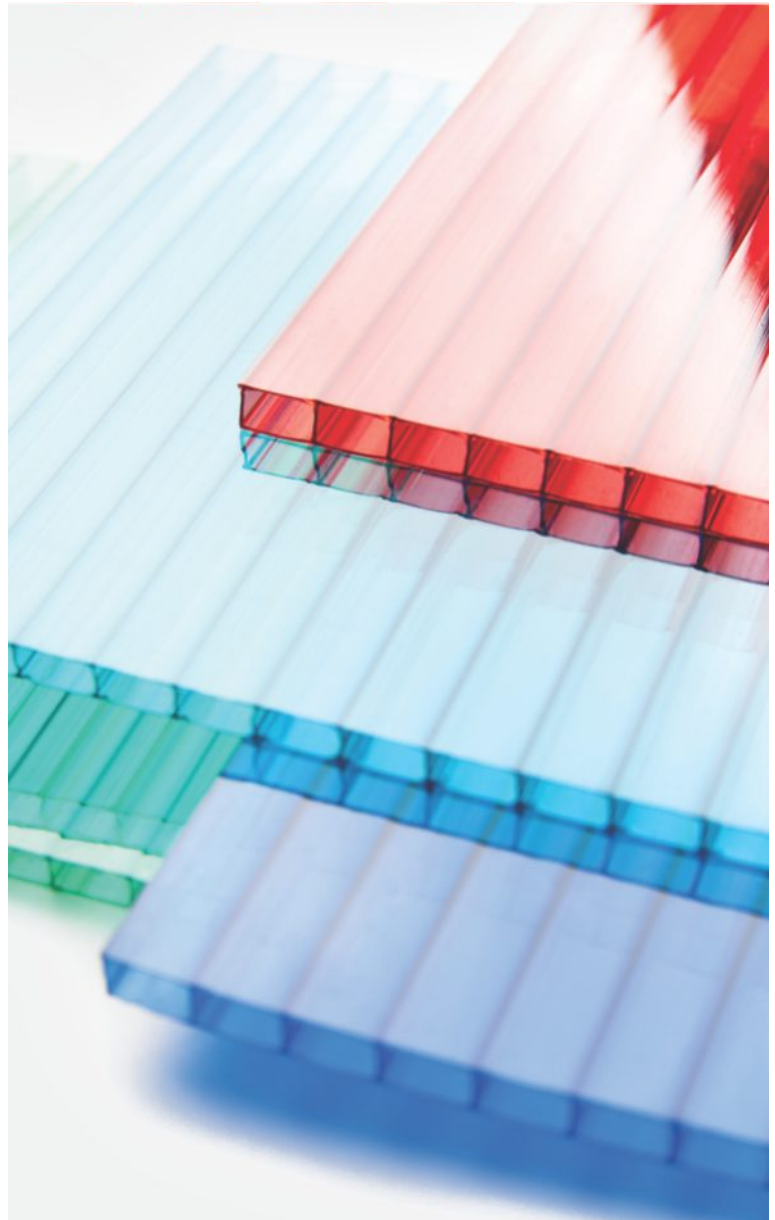
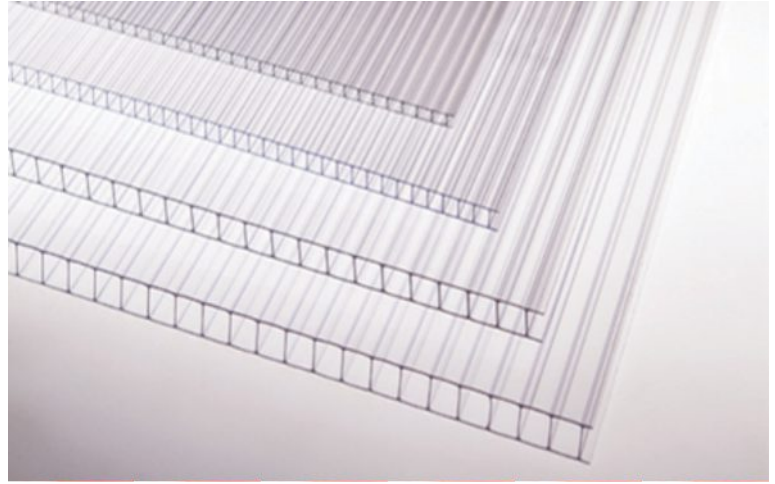
Polycarbonate Hollow Sheet is stronger and lighter than most glazing material, installation is easier and less structure support is required.

## MAIN BENEFITS

- High thermal insulation
- High impact resistance
- High sound insulation
- High fire ratings
- Optical properties
- Excellent structural durability
- Excellent resistance to chemicals
- Easy to handle and install
- Weather and UV resistant
- Long life span

## TYPICAL APPLICATIONS

- Architectural roofing and glazing
- Skylights and sidelights
- Conservatory roofing
- Covered walkways
- Illuminated signage and displays
- Decorative partitions
- Sound barrier walls
- Greenhouse and garden center roofing
- Sunshades for stadiums and bus shelters



# TILARA® Polycarbonate Hollow Sheet

## PRODUCT CHARACTERISTICS

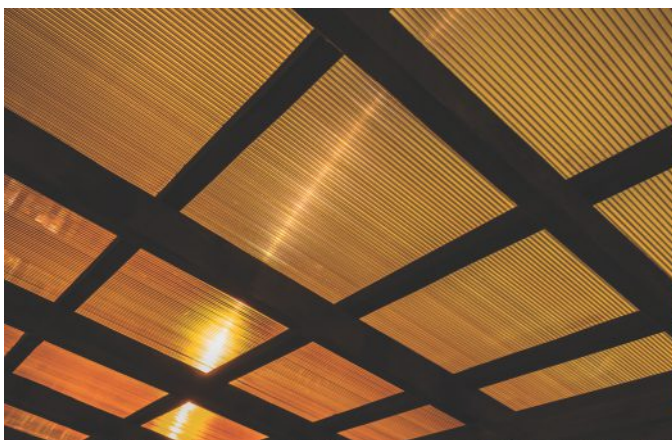
GENERAL			
TEST ITEM	TEST METHOD	UNIT	RESULT
<b>Impact Resistance</b> Izod Impact (Notched) 'Raw material - Resin Specification  Sheet Curve Radius Limitation Thickness = 6mm > 1050mm Thickness = 10mm > 1750mm	ASTM D 256 Pendulum : 7.5 Joule	J / m	908
<b>Specific Gravity</b> Density, D23C	ASTM D 792	Sp gr 23/23C Kg/m	12
<b>Flammability</b> Horizontal Burn (Flame Spread)	ASTM D 635	Mm/minute	< 25
Test Report			P05440

## SPECIFICATION

**Thickness :** 4mm, 6mm, 8 mm, 10mm

**Colour :** CLEAR, BROWN , SILVER , OPAL WHITE , BLUE , GREEN

**Standard size :** 2100 x 11800, 2100 x 5800, 1220 x 11800, 1220 x 5800 (customize size also available)





**TILARA Acrylic Sheet** is a thermoplastic sheet that is an alternative of Polycarbonate when extreme strength is not compulsory.

It is often preferred because of its moderate properties, easy handling, fabrication and other processing. Tilara Acrylic has better scratch resistance properties than other conventional sheet.

**TILARA Extrusion Acrylic Sheet** manufactured by modified grade MMA resin which has higher scratch resistance with best impact resistance, weather resistance and thermal resistance. As per its better weather and UV resistance, it's also perfect for outdoor application. Its transmittance up to 92% of visible light and give best reflection from each of its surface. Our moderate extrusion technology process maintains product quality like transparency, color, accurate thickness and other object.

Tilara Acrylic Sheet can be glue easily by using many different organic based adhesive. Being transparent, Color and durable, it is a multifaceted material and used in various segment and applications such as sound barrier walls, Bathtubs, Security barrier, Shatter resistance panels for building window, Furniture, Lighting, Sign-Display, advertising and many other.

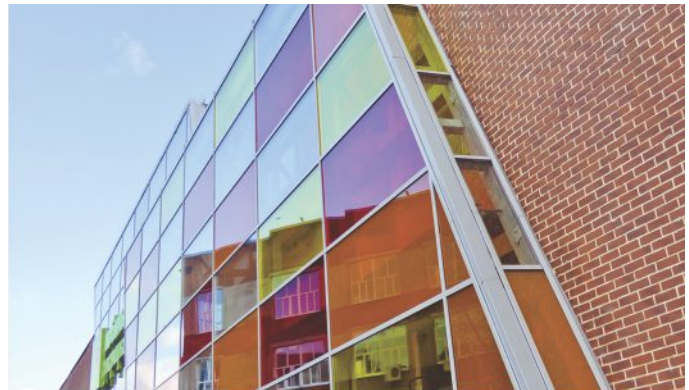
**TILARA Acrylic Sheet** is odorless that can be easily thermoform, blow, bend, print and laser without any excruciation.

## APPLICATIONS

- Exhibition booths
- Interior and exterior lighting
- Cosmetics
- Museum casings
- Noise-reducing walls
- Signage and advertising
- Aquarium
- Gift Article and Trophy

## KEY FEATURES

- Excellent thickness tolerance
- Optical clarity
- Lightweight
- High gloss surface on both sides
- Hard wearing
- Weather resistant
- Easy to bend and shape
- Economical
- Suitable for vacuum forming



# TILARA<sup>®</sup> Acrylic Sheet (PMMA)

## GENERAL

General Properties	Conditions	Test Method	Unit	Value
Density		ISO 1183	gr/cm <sup>3</sup>	1,19
Water Absorbtion (24h)	23°C / 50% RH (24h)	ISO 62	%	0,3
Moulding Shrinkage		ASTM D-955	%	0, 2-0, 6

## MECHANICAL

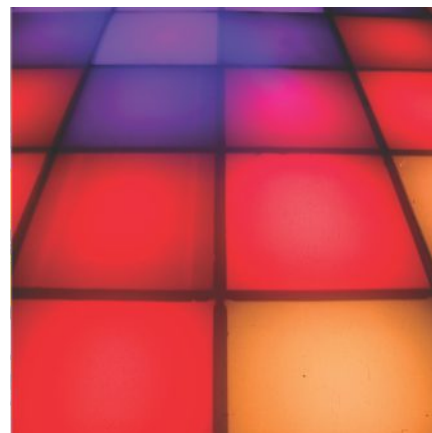
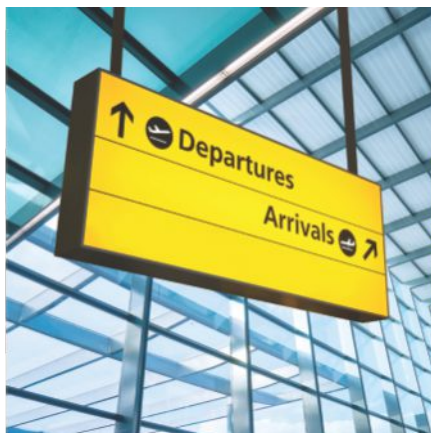
General Properties	Conditions	Test Method	Unit	Value
Tensile Strength at Break	23°C	ISO 527-2	MPa	83
Econgation at break	23°C	ISO 527-2	%	7
Tensile Modulus	23°C	ISO 527-2	MPa	3200
Flexural Strength at Break	23°C	ISO 178	MPa	120
Flexural Modulus	23°C	ISO 178	MPa	3300
Charpy Impact Strength with Notched	23°C	ISO 179-1eA	kJ/m <sup>2</sup>	2
Izod Impact Strength		ISO 178	kJ/m <sup>22</sup> , 1	
Rockwell Hardness M Scale		ISO 2039-2	M-scale92	

## THERMAL

General Properties	Conditions	Test Method	Unit	Value
Vicat Temperature	50 N	ISO 306	°C	105
Deflection temperature under load	1,8 MPa	ISO 75	°C	100
Coefficient of linear expansion		ISO 11359-2	mm/m °C	0,07

## THERMAL

General Properties	Conditions	Test Method	Unit	Value
Dielectrical Strength		DIN53481	kV/mm	20
Dielectric Constantto	1 KHz	DIN 53843		3,1





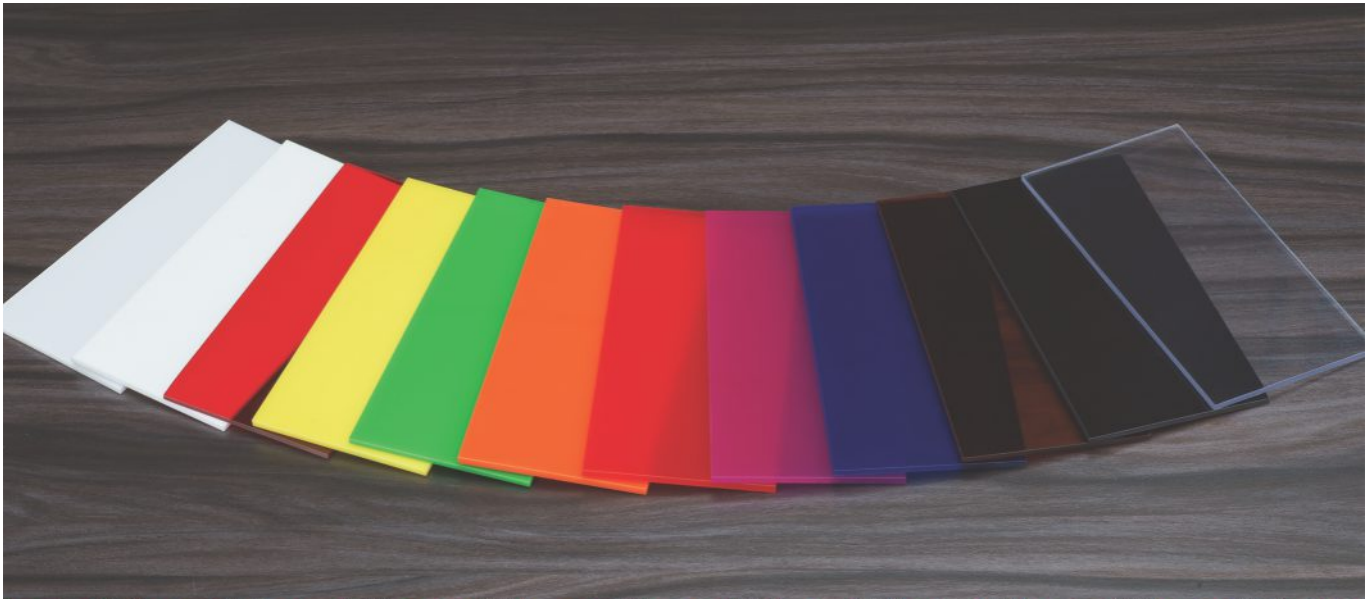
**TILARA GPPS/ Plastic Sheet** possess excellent Transparency & Compactness. Having Crystal Clear appearance on Transparent Sheet, light weight & easy to install. GPPS Sheets are Cost effective, Shatter resistant, transmits 90 % of light and can be cut into ideal shapes for varied applications.

Available in Transparent, Semi - Transparent, Colours in Huge range / specific colour can be on request and range of Embossed design on Surface.

TILARA GPPS Sheets are safe guarded with Supreme Quality Protection Masking Kraft Paper & Poly Ethylene Film which acts as damage proof while on transit or material handling.

**TILARA GPPS Textured Sheet:** Different Texture Finish on Surface of the Sheet caters to a wide range of application like Partitions, Celings, Window Panel, Door Panel, Printing & many more. GPPS Textured Sheet is intended primarily for areas such as interior fittings for decoration, display and point-of-sale, visual merchandising, store design and where safety requires the light-weight and shatter resistance of GPPS plastic sheet.

Our R&D & Qualified Engineers have lead us achieve Un-matched Quality, Dimension Stability, High- durability, water resistant & possess capability in enhancing luminance.



# TILARA® GPPS Sheet (PS)

## TEST PROPERTIES

TEST ITEM	TEST METHOD		UNIT	VALUE
Specific gravity	ASTM D792	JIS K7112 A (Method)	---	1.04
Vicat Softening Temperature	ASTM D1525	JIS K7206 (B50)	°C	95
Izod Impact Strength	ASTM D256	JIS 7110	KJ/m2	1.9
Flexural Modulus	ASTM D790	JIS 7171	MPa	88
Tensile Strength	ASTM D638	JIS 67162	%	2.2
Heat Deflection Temperature at 0.45 Mpa	ASTM D648		%	97

## COLORS

Off White -040, Milky White, Smoke, Black, Green, Green Trans, Red, Red Trans, Blue, Blue Trans., Orange, Orange Trans, Yellow, Yellow Trans and Customise.

## DIMENSIONS

**Thickness :** 0.8 mm~12 mm Standard Size &

**Length :** 8 x 4, 6 x 4, 4 x 3 (ft)

**Width :** 915 mm - 1220 mm

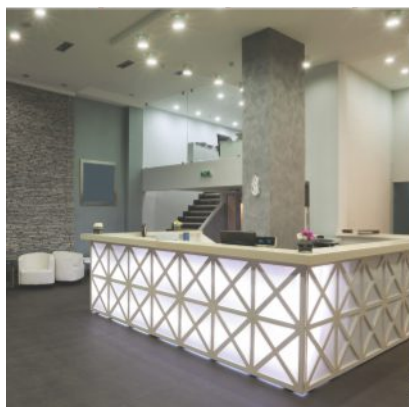
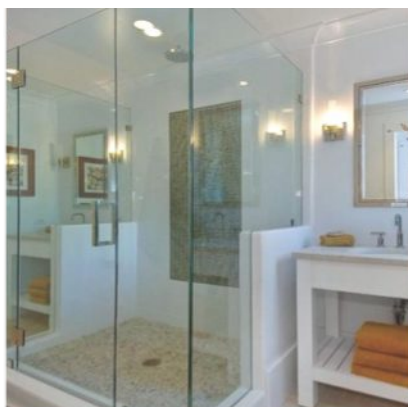
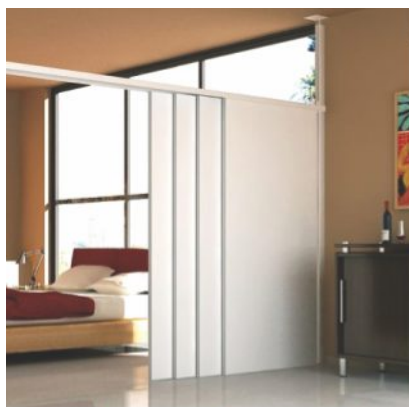
## SURFACE TEXTURE

3D Checks, Bubbles, Sea Gul, Ice Crush, Star, Rift, Karakachi, Matt, Prismatic

**Surface Protection:** Kraft Masking Paper or PE Masking

## APPLICATIONS

- Exhibition booths
- Office Partition
- Indoor Partition
- Exhibition Stand
- Bus Stand
- Window Panel
- Name Plate
- Interior Partition
- Shower Door
- Colour Box Accessories
- Jewelry Box





## CHARACTERISTIC

- Excellent optical dispersion and high transmittance, it can get more brightness based on the same light source, making the light diffusion get the best condition and reduce light source energy consumption effectively.
- The color temperature is stable and color rendering index does not fall it, can totally keep the natural color LED
- Heat-resistance, impact resistant, dimension stability, good flatness
- Easy cutting process, it can be bend and thermoforming, trouble-free fabrication
- Embossed: One sided matt, both sided matt, both sided glossy and prismatic
- Various shapes, e.g. round, square, rectangle and etc.; also custom thermoforming product.

### DIFFUSER SHEET

MATERIAL	STANDARD THICKNESS	STANDARD SIZE
PS	1.2mm	1220 x 1820mm
	1.5mm	
	2mm	

## LIGHT TRANSMISSION

60%-90%

## TYPICAL APPLICATIONS

- LED Panel Light & Down Light
- LED Advertising light box
- Privacy Glazing
- Luminaries & Illuminated signage
- Light Diffuser in architectural light fittings
- Spotlights
- Lamp chimney



**Tilara Lighting Profile** are extruded from Polycarbonate material with Transparent and Opal color surface high mechanical resistance material.



## APPLICATIONS

- Lighting & LED
- Outdoor & Indoor
- LED Tube Lights
- Underground, Rail Stations and Airports
- Metro, Train, Bus and Coaches
- Wall Systems and Glass Partitions
- Industrial
- Decorated Ceilings
- Gardens
- Illuminated Advertising

## PRODUCTS

- Polycarbonate Transparent Lighting Profiles
- Polycarbonate Opal Lighting Profiles
- Polycarbonate Glazing Profiles

**We can make any custom profile as per below dimension**

Size: 40mm x 40mm

Thickness: 0.5mm - 1.5mm



## Tilara Polycarbonate Tube :

TILARA Polycarbonate Tube are made by best Extrusion Technology with best class Resin, other organic compounds. Polycarbonate is one of the best versatile thermoplastics.

TILARA PC tube is Light weight, durable, high impact resistance, high temperature resistant, high tensile resistant, ultraviolet stabilization, glass like transparency & clarity, Easily Molded, Most Dimensional stability than other thermoplastics.

TILARA can be drilled, cut and sawed and easy to join with organic adhesive solvents, it has very long life so it can be used for lot of applications like as - extrusion and blow molding & injection molding.

## Applications :

Medical Apparatus (Sterilisable), Lathi (Hand Stick), Light fittings, Laboratory Equipment, Medical Devices, Insulators, Component Housing, Handles, Novelty Items, Birdfeeders, Roller, Industrial (Boiler) etc.

## Tilara Acrylic Tube :

TILARA manufactures best quality extruded acrylic tube by best grade PMMA resin raw materials with other organic chemical substances By Extruded line technology. It have Robust quality in many color - clear, opal & transparent.

It can be easily cut & drilled and also ease fabricated with adhesive solvents. It have major robust and rigid, high impact resistance and weather resistant, light weight and having good transparency clarity. We can easily mold or bend to it by heated into any shape.

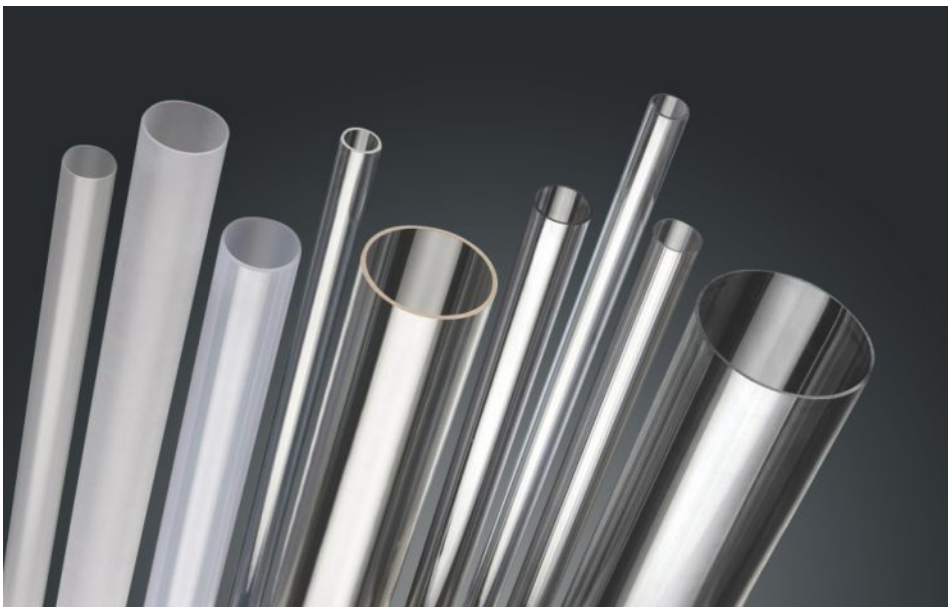
TILARA acrylic tube is available in ranges of many colors as per diameters sizes and having packed with polyethylene film for better protection and good caring. It have long life so suitable for both internal and external use.

## Applications :

It is commonly used for grab bars in showers, tube and spas. Interior decorates & other Commercial use for medical equipment, engineering craft articles, Interior.

## DIMENSION GIVEN BELOW

Sl. No.	1	2	3	4	5	6	7	8	9	10	11
Dia in mm	18	18	18	25	25	25	30	30	30	50	50
Thickness mm	3	3.5	4	3	3.5	4	3	3.5	4	2	2.5



## **TILARA Polycarbonate Rod :**

TILARA Polycarbonate Rod is a mechanical grade of extruded polycarbonate that offers high strength, stiffness, virtually unbreakable and impact resistance with temperature resistance to 290°F. This material also has excellent electrical properties, making it applicable for both the electronics industry and structural applications requiring transparency.

Its strength, impact resistance and transparency also make it an ideal material for certain transparent structural applications such as sight glasses, windows, manifolds and insulators.

### **Applications :**

- Equipment enclosures
- High voltage switches
- High temp windows
- Instrument gage covers
- Lenses and sight glasses
- Thermal insulation

## **Tilara Acrylic Rod :**

TILARA Acrylic Rod are Manufactured by Extruded Technology using with best class resin and raw material with organic compounds. Its came in many color - clear, opal & transparent. It can be cut easily like as wood and also able to ease fabrication. It more economical than glass.

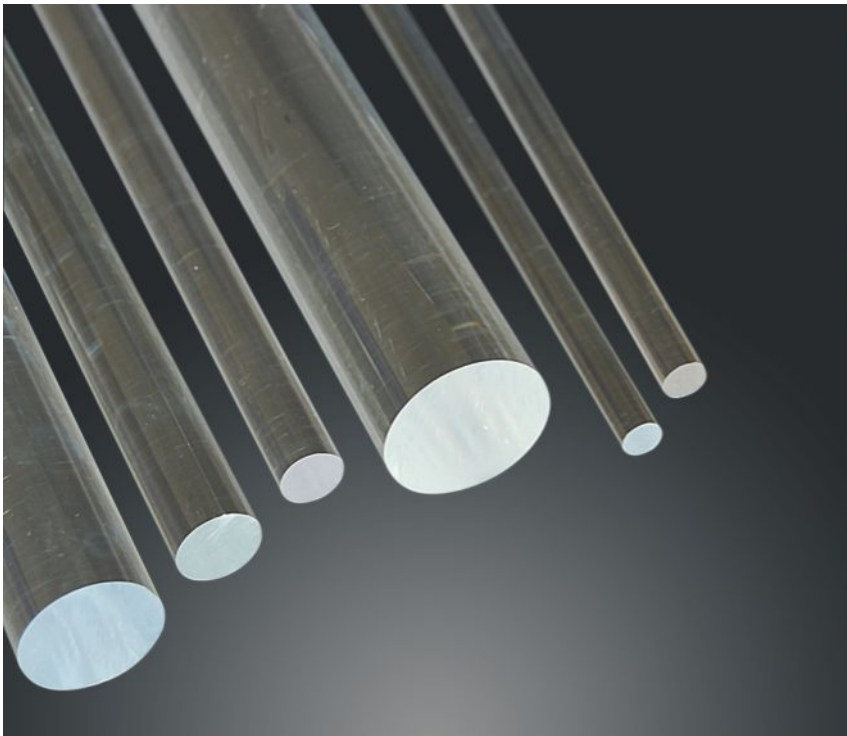
TILARA Extruded Rod Provided best Performance And long Durability. Acrylic rod is Available in range of Sizes and Diameters in Every Color. Its packing with polyethylene film.

It also suitable for both Internal and External use. When heated, rod can be bent into any shape.

### **Applications :**

It's an ideal choice for indoor and outdoor use.

Displays, Laboratory Equipment, Trophies, Frames, furniture, Decorative Architectural and Glazing And other Popular glass Applications.





ON BEHALF OF ENTIRE **TILARA TEAM**,  
WE WELCOME YOU TO OUR JOURNEY &  
WE WISH YOU SUCCESS IN FUTURE ENDEAVOUR.





**TILARA POLYPLAST PVT. LTD.**

Survey No. 26, Tilara Road, At. Shapar,  
Dist. Rajkot - 360 024, Gujarat, India.  
Phone: +91. 2827. 253303,  
E-mail: [info@tilarapolyplast.com](mailto:info@tilarapolyplast.com)  
Web.: [www.tilarapolyplast.com](http://www.tilarapolyplast.com)