

Your Trusted Source  
for Industrial Plastics



Chennai  
Polyplast



## Chennai Polyplast

Stockists of premium industrial plastics,  
delivering the right material, at the right time,  
with uncompromised quality.

## ABOUT US

For over 25 years of experience, Chennai Polyplast has been a dependable partner in the industrial plastics marketplace, specialising as a premium stockist of quality plastics and engineered polymer solutions. Based in Chennai, we bridge manufacturers and end-users by maintaining a wide inventory of industrial-grade plastics ready for rapid dispatch, enabling manufacturers, fabricators and engineering operations to move fast and avoid production delays.

### Our role as a stockist allows us to:

- Offer broad product availability from multiple trusted brands.
- Deliver just-in-time stock so you can keep your operations lean.
- Provide material expertise and help you select the right polymer for your application.

With our deep market knowledge, regional reach, and decades of experience, Chennai Polyplast supports the manufacturing, processing and assembly industries with the plastics they need, reliably, efficiently and cost-effectively.



## OUR MISSION

- To maintain a comprehensive and diverse portfolio of engineering and industrial plastics from best-in-class brands.
- To deliver accurate, timely, and efficient supply-chain support so our clients never face downtime for material shortages.
- To act as a consultative partner, helping you choose the right material grade, size and delivery format for your production.
- To build long-term relationships with manufacturers, fabricators and end-users based on reliability, integrity and responsive service.

## OUR VISION

To be the preferred plastics inventory partner for the Indian industrial sector, an organisation trusted for stock availability, expert guidance and rapid supply so our customers always have the material they need when they need it.

## OUR GOALS

- Expand our product catalogue continually, keeping pace with emerging polymers and new material grades.
- Keep our stock inventory fresh and regionally optimised, so lead-times are reduced and availability maximised.
- Provide value-added services such as material recommendations, sizing conversions and batch tracking.
- Position ourselves as the logistics-efficient stockist of choice for Chennai, Tamil Nadu and South India.
- Strengthen partnerships with both international polymer suppliers and local fabrication houses to maintain a win-win supply ecosystem.

## INDUSTRIES WE SERVE

At Chennai Polyplast, our focus is strongly industry-centric. We serve a wide array of sectors, supplying plastics that meet the demanding requirements of each application. Among them:

**Automotive & Components** – plastic rods, sheets and sections for machine parts, fixtures, jigs, mould-inserts and fabrication.

**Electrical & Electronics** – insulating plastics, polymer sheets for PCB supports, cable ducts, panel fabrication and other critical components.

**Chemical & Process Industries** – materials resistant to aggressive chemicals, high temperatures, abrasion – for use in valves, fixtures, linings and supports.

**FMCG & Packaging** – plastic sheets, rolls and parts used in the support-frames of packaging machines, conveyors, storage systems.

**Textile Manufacturing** – plastics for machine parts, bearings, scrapers, guides and other wear-parts in textile production lines.

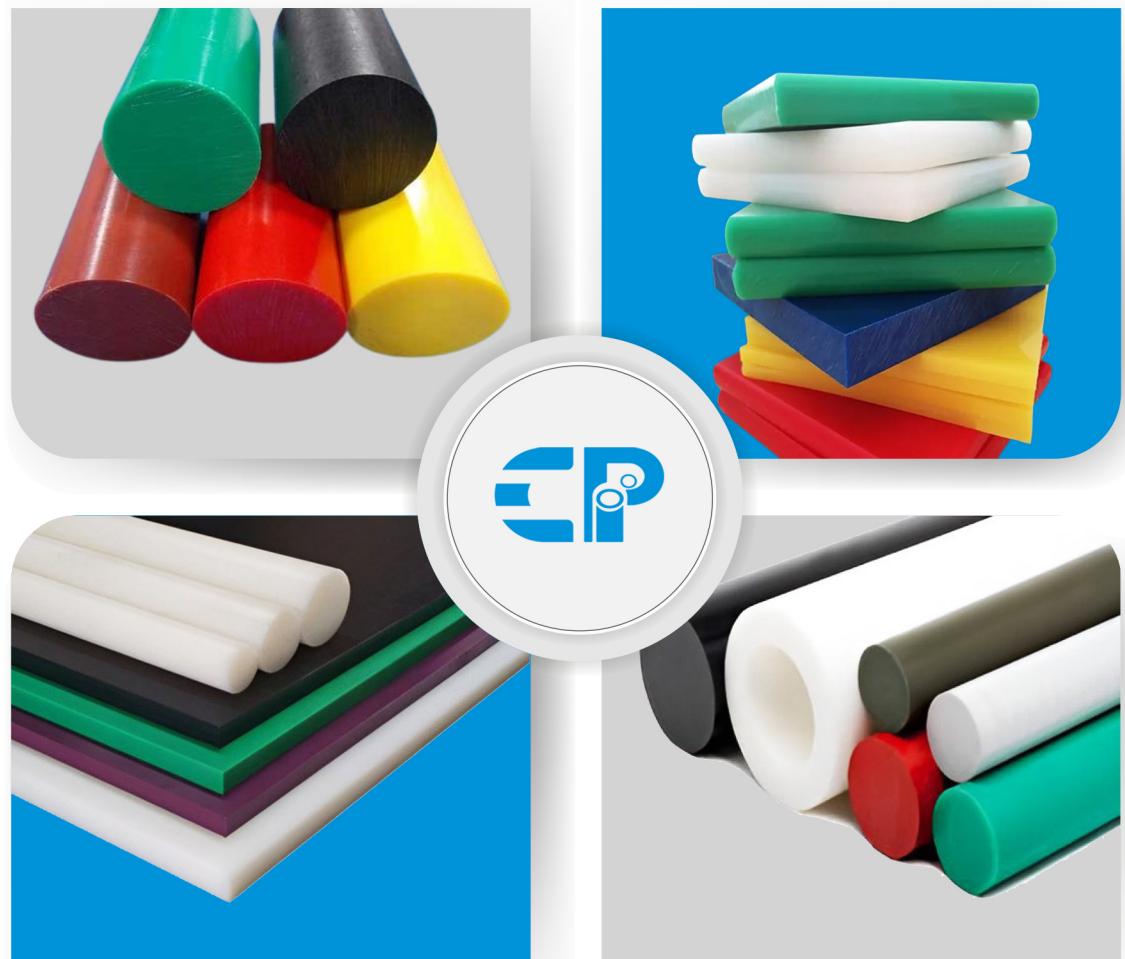
**Agriculture & Horticulture** – plastic components for drip-irrigation systems, greenhouse frames, component brackets, protective structures.

**Construction & Infrastructure** – robust sheets and rods used in form-work, scaffolding supports, structural components, sign-frames and fabrication applications.

**Logistics & Warehousing** – polymer boards, heavy-duty plastic sheets, rollers and guides used in racking systems, conveyor lines, loading docks.

Our extensive industry knowledge means we understand the demanding environments you operate in: high-cycle production, aggressive chemicals, heat, abrasion and precision tolerances. We make sure you get the plastics that match your operational challenge and have them ready when you need them.

# HDPE - POLYETHYLENE SHEETS & RODS



## Product Description

High Density Polyethylene Rod (HDPE) is a FDA Approved material of the highest quality with excellent impact resistance. HDPE has high tensile strength, low moisture absorption and is chemical and corrosion resistant. It is a light weight material that is non-toxic and non-staining and used in a variety of applications and industries.

## Typical Application

- Cutting Boards
- Chemical Tanks
- Light Duty Chain Guides
- Orthotics & Prosthetic Device
- Water Storage
- Food Processing
- Mining Chute Liners
- Thermoforming
- Chair & Belt Guides
- Wear Strips
- Neck Guides
- Corner Tracks
- Spiral Conveyors
- Extruded profiles & Guide Rails

## Typical Application

- FDA/USDA food handling guidelines
- Light-weight
- Chemical and corrosion resistant
- Low moisture absorption
- High tensile strength
- Excellent impact resistance

## Sizes Available

- Thickness available from: 1mm to 200mm
- Sizes available: 1mt x 2mt, 1.22mt x 2.44mt, 1.2mt x 2mt, 1.5mt x 3mt
- Rods Dia available from: 16mm dia to 400mm dia
- Squares available from: 16mm sq to 150mm sq
- Profiles available as per customer requirement

## Products

Sheets	Rods	Square Rods	Profiles
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## Mechanical Properties

Performance & Test Conditions	Test Method	Unit	Typical Values
Notched impact strength of cantilever beam, 23°C	ASTM D256	J/m	80
Yield tensile strength, 23°C, 50mm/min	ASTM D638	Mpa	30
Elongation at break, 23°C, 50mm/min	ASTM D638	%	500
The bending strength, 23°C, 2mm/min	ASTM 790	Mpa	35
Bending modulus, 23°C, 2mm/min	ASTM 790	Mpa	1375
Shore hardness D	ASTM D2240	-	75
The Density	ISO 1183	g/cm³	0.96

## Thermal Performance

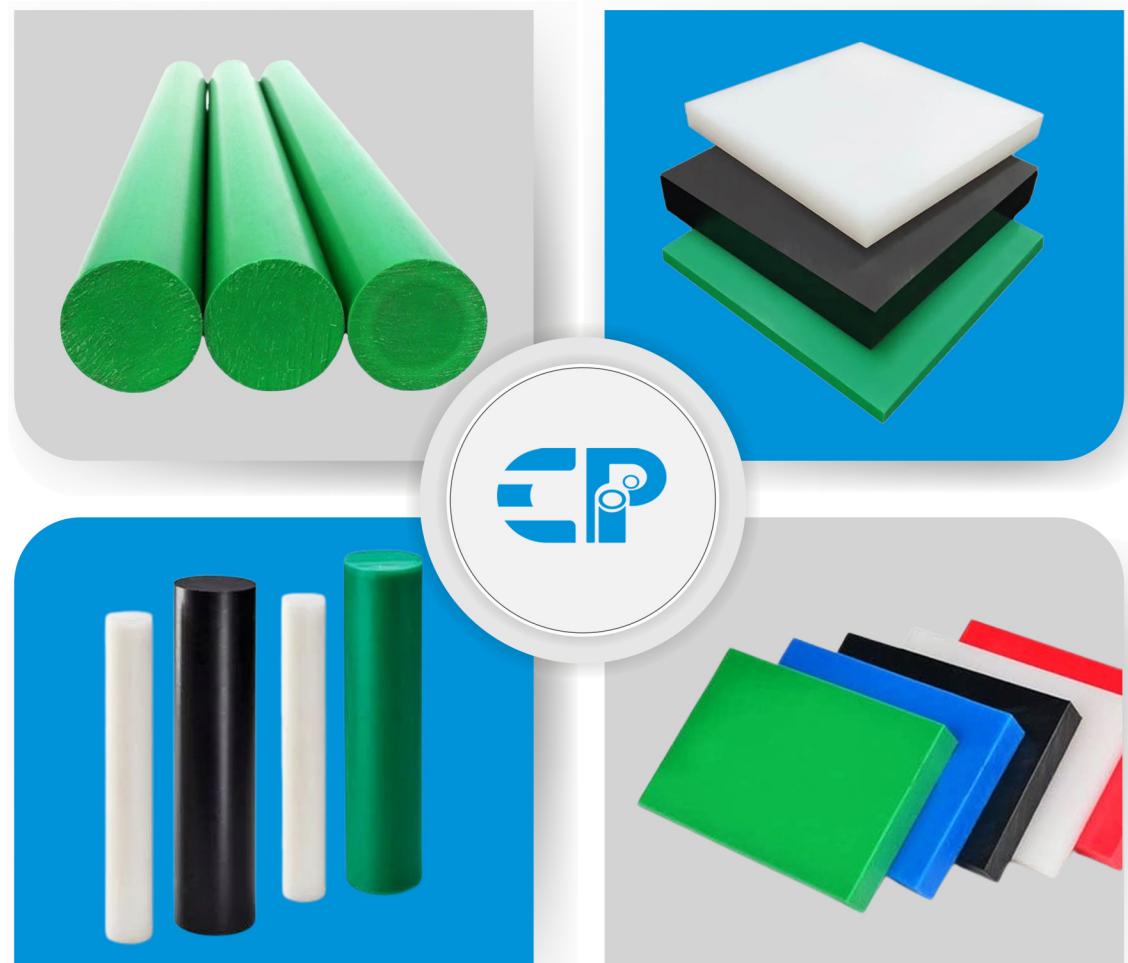
Performance & Test Conditions	Test Method	Unit	Typical Values
Thermal deformation temperature(HDT) (0.45Mpa)	ISO 75	°C	80
Melting point	-	°C	120
Long term operating temperature	-	°C	90
Short-term operating temperature	-	°C	110
Thermal conductivity	DIN 52612-1	W/(K-M)	-
Linear expansion coefficient	ASTM D696	10-5/K	15.5

## Electrical Performance

Performance & Test Conditions	Test Method	Unit	Typical Values
Dielectric strength	ASTM D150	KV-mm	40
Dielectric loss coefficient	ASTM D150	-	-
The volume resistance	ASTM D257	Ω.cm	10¹⁴
The surface resistance	ASTM D257	Ω	10¹⁶
Dielectric constant	ASTM D149	-	2.4

Note: The technical data and values provided in this catalogue are for reference purposes only. Actual performance and specifications may vary depending on processing conditions and application requirements. The company reserves the right to modify data without prior notice.

# UHMW – PE



## Product Description

UHMW-PE (ultra-high molecular weight polyethylene) sheets are a type of plastic that is known for its extremely high wear and abrasion resistance. It is also self-lubricating, has a low coefficient of friction, and is resistant to chemicals and moisture. Our commitment to engineering excellence is evident in every UHMW – PE Sheet we produce. Whether you seek wear resistance, low friction, or chemical resilience, our UHMW – PE Sheets are engineered to exceed your expectations and elevate your industry's performance.

## Features

- Excellent Electrical Insulation
- Chemical Resistance
- Moisture Barrier
- High Elongation

## Sizes Available

- Thickness available from: 6mm to 150mm
- Sizes available: 1mtr x 2mtr, 1.25 x 3mtr, 0.7mtr x 5mtr
- Rods dia available from: 16mm dia to 400mm dia
- Squares available from: 16mm sq to 150mm sq
- Profiles available as per customer requirement

## Mechanical Properties

Performance & Test Conditions	Test Method	Typical Values
Tensile Strength (psi) at 72°F	D638	5,800
Tensile Strength (psi) at 150°F	D638	400
Tensile Modulus (psi)	D638	80,000
Tensile Elongation at Break (%)	D638	300
Flexural Strength at Yield (psi)	D790	3,500
Flexural Modulus (psi)	D790	88,000
Compressive Strength (psi)	D695	3,000
Compressive Modulus (psi)	D695	80,000
Shear Strength (psi)	D732	3,000
Hardness, Shore D	D785	D62-D66
IZOD Notched Impact (ft-lb/in)	D256	No Break

## Thermal Performance

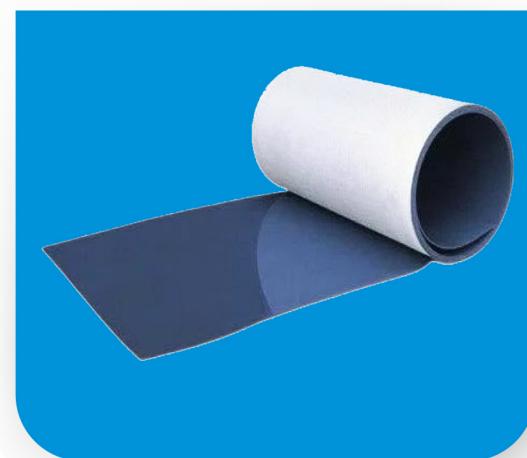
Performance & Test Conditions	Test Method	Typical Values
Coefficient of Linear Thermal Expansion ( $\times 10^{-5}$ in./in./°F)	D696	11
Heat Deflection Temp (°F / °C)	D648	-
At 66 psi	-	203 / 95
At 264 psi	-	180 / 82
Approx. Melting Temperature (°F / °C)	D3418	275 / 136
Max Operating Temp (°F / °C)	-	180 / 82
Thermal Conductivity	C177	-
(BTU-in/ft <sup>2</sup> -hr-°F)	-	2.84
( $\times 10^{-4}$ cal/cm-sec-°C)	-	10.0
Flammability Rating	UL94	HB

## Electrical Performance

Performance & Test Conditions	Test Method	Typical Values
Dielectric Strength (V/mil) short time, 1/8" thick	D149	2300
Dielectric Constant at 1 MHz	D150	2.30-2.35
Dissipation Factor at 1 kHz	D150	0.0005
Surface Resistivity (ohm/square) at 50% RH	D257	>10 <sup>15</sup>
Arc Resistance (sec)	D495	250-350

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# PPGL ROLLS



## Product Description

Polypropylene (PP) is light, strong and has resistance to chemicals and has a low friction surface, all of which make it ideal as a replacement for wood or metal which are the materials traditionally used. PP is a high corrosion resistant material, which exhibits excellent tensile strength and stiffness at elevated temperatures.

## Typical Application

- Acid tank & vessel linings
- Component carrier for storage
- Racks
- Etching machines & rinse tubs
- Fans
- Flange
- Fume hoods & ducts
- Metal plating Barrels
- Scrubbing Towers
- Ducting Fume Cupboards
- Electroplating Barrels
- Electroplating Blowers
- Fermentation Vessels
- Pickling Tanks

## Features

- Excellent Electrical Insulation
- Chemical Resistance
- Moisture Barrier
- High Elongation

## Sizes Available

- Thickness available from: 2mm thick to 5mm thick
- Sizes available in: 1300mm x 10mt, 1500mm x 10mt, 1300mm x 20mt, 1500mm x 20mt
- Length can be varied as per customer requirement

## Mechanical Properties

Performance & Test Conditions	Test Method	Unit	Typical Values
Notched impact strength of cantilever beam, 23°C	ASTM D256	J/m	35
Yield tensile strength, 23°C, 50mm/min	ASTM D638	Mpa	29
Elongation at break, 23°C, 50mm/min	ASTM D638	%	300
The bending strength, 23°C, 2mm/min	ASTM 790	Mpa	35
Bending modulus, 23°C, 2mm/min	ASTM 790	Mpa	1030
Shore hardness D	ASTM D2240	-	80
The Density	ISO 1183	g/cm³	0.910

## Thermal Performance

Performance & Test Conditions	Test Method	Unit	Typical Values
Thermal deformation temperature(HDT) (0.45Mpa)	ISO 75	°C	83
Melting point	-	°C	170
Long term operating temperature	-	°C	95
Short-term operating temperature	-	°C	120
Thermal conductivity	DIN 52612-1	W/(K-M)	-
Linear expansion coefficient	ASTM D696	10-5-1/K	15

## Electrical Performance

Performance & Test Conditions	Test Method	Unit	Typical Values
Dielectric strength	ASTM D150	KV-mm	40
Dielectric loss coefficient	ASTM D150	-	-
The volume resistance	ASTM D257	Ω.cm	10¹⁴
The surface resistance	ASTM D257	Ω	10¹⁶
Dielectric constant	ASTM D149	-	2.3

# POLYOXYMETHYLENE (POM) / POLYACETAL SHEETS AND RODS



## Product Description

Polyacetal (POM) sheets and rods are among the strongest and stiffest of all thermoplastics. Plastic materials are characterized by good fatigue life, low moisture sensitivity, and high resistance to solvents and chemicals. Polyacetal products also contain good electrical properties. Homo-polymer and Copolymer grade of Polyacetal are available including an enhanced bearing grade material. Polyacetal -POM is a semi crystalline engineering plastic that is beneficial to engineering applications, and is suited to CNC machining. Polyacetal -POM is a semi crystalline engineering plastic that is beneficial to engineering applications, and is suited to CNC machining.

## Typical Application

- Gear wheels with small modulus
- Dimensionally stable precision parts
- Cams
- Electrically insulating components
- Heavily loaded bearings and rollers
- Bearing and gears with small clearances
- Valve seats
- Snap fit assemblies

## Features

- High mechanical strength
- Excellent resilience
- Excellent machinability
- Physiologically inert (most grades are suitable for food contact)

## Sizes Available

- Sheet Thickness available from: 1mm to 200mm
- Sizes available in sheets: 610mm x 1200mm, 1000mm x 2000mm
- Rods Dia available from: 16mm dia to 200mm dia
- Rods length available in: 1 feet and 1 meter length

## Products

Sheets

Rods

Square Rods

Profiles

## Mechanical Properties

Performance & Test Conditions	Test Method	Unit	Typical Values
Notched impact strength of cantilever beam, 23°C	ASTM D256	KJ/m <sup>2</sup>	10
Yield tensile strength, 23°C, 50mm/min	ASTM D638	Mpa	60
Elongation at break, 23°C, 50mm/min	ASTM D638	%	25
The bending strength, 23C, 2mm/min	ASTM 790	Mpa	70
Bending modulus, 23°C, 2mm/min	ASTM 790	Mpa	2500
Shore hardness D	ASTM D2240	-	85
The Density	ISO 1183	g/cm <sup>3</sup>	1.42

## Thermal Performance

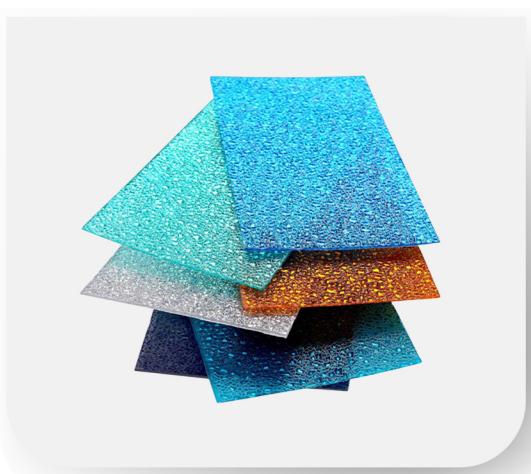
Performance & Test Conditions	Test Method	Unit	Typical Values
Thermal deformation temperature(HDT) (0.45Mpa)	ISO 75	°C	120
Melting point	-	°C	170
Long term operating temperature	-	°C	100
Short-term operating temperature	-	°C	120
Thermal conductivity	DIN 52612-1	W/(K-M)	0.33
Linear expansion coefficient	ASTM D696	10-5/K	13

## Electrical Performance

Performance & Test Conditions	Test Method	Unit	Typical Values
Dielectric strength	ASTM D150	KV-mm	19
Dielectric loss coefficient	ASTM D150	-	0.007
The volume resistance	ASTM D257	Ω.cm	10 <sup>15</sup>
The surface resistance	ASTM D257	Ω	10 <sup>15</sup>
Dielectric constant	ASTM D149	-	3.7

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# POLYCARBONATE SOLID SHEET & ROLL



## Product Description

**Solid Polycarbonate Sheets** offer a wide range of properties that make them superior to other thermoplastic sheets or products and the material of choice for high performance roofing applications, glazing and fabricated solutions. **Solid Polycarbonate Sheets** possess excellent impact resistance, transparency and temperature resistance to make it a versatile glazing material for Industrial & commercial applications. These sheets also have excellent fire-retardant properties and are classified a self-extinguishing material. It's very high impact resistance strength ensures that **Solid Polycarbonate Sheets** can be widely used for safety glazings and related applications. They can also be deployed in applications where they are subjected to high levels of vibrations and accidental impact. These include Noise Barriers along Highways, visual & noise barriers on bridges and on security barriers. **Our Solid Polycarbonate Sheets are 250 times stronger than glass and 25 times more impact resistant than acrylic sheets.**

**Solid Polycarbonate Sheets** can also be engineered to suit food grade applications and enhanced fire-retardant property in case of specific applications or requirements. **Embossed Polycarbonate Sheets:** These sheets offer all the advantages of solid polycarbonate sheets with the additional feature of excellent light diffusion, making them the ideal choice for skylights, profiled sheets used in tandem with metal, asbestos cement, GI and other profiled roofing sheets for skylight applications and day-light cladding applications. **Diamond Polycarbonate Sheets:** With a diamond like surface texture, these sheets are also manufactured in attractive colours to suit decorative applications, residential roofing and glazing structure coverings. These sheets are available in clear, bronze, blue, lake blue and green colours as a standard. Special colours can be developed and manufactured in case of large quantity requirements. Chennai Polyplast Solid & Embossed Polycarbonate Sheets are available in roll form in lower thicknesses and are extensively used for manufacturing profiled sheets and thermoformed / vacuum formed products.

## Features

- Extreme impact strength
- High transparency
- Easy installation
- Sound insulation
- Weather & UV- resistance
- Virtually unbreakable
- Low moisture absorption
- Easily machined
- Easily fabricate
- Easily thermoform
- Half the weight of glass
- ECO friendly material
- Building & Construction
- Printing & Fabrication
- Thermoforming & Machining
- Defence & Security Glazing
- Aerospace & Rail
- Signage & Advertising
- Mass Transportation & Automotive
- Lighting

## Related Industries

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

## General

General Properties	Test Method	Unit	Typical Values
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 Properties

General Properties	Test Method	Unit	Typical Values
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/m <sup>2</sup>	Not break
Izod Impact notched	ISO 180a	kJ/m <sup>2</sup>	>65

## Thermal Performance

General Properties	Test Method	Unit	Typical Values
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 Performance

General Properties	Test Method	Unit	Typical Values
Volume Resistivity	IES 60093	Ω x cm	$3 \times 10^{14}$
Surface Resistivity, dry	IEC 60093	Ω	$6 \times 10^{15}$
Dissipation Factor 1 Mhz	IEC 60250	-	0.009
Dissipation Factor 100Hz	IEC 60250	-	0.0006

## Available in

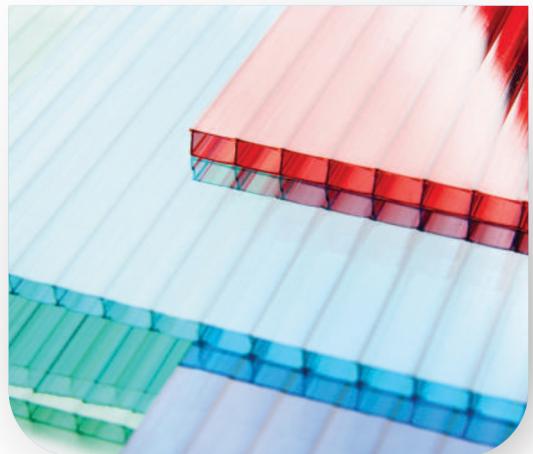
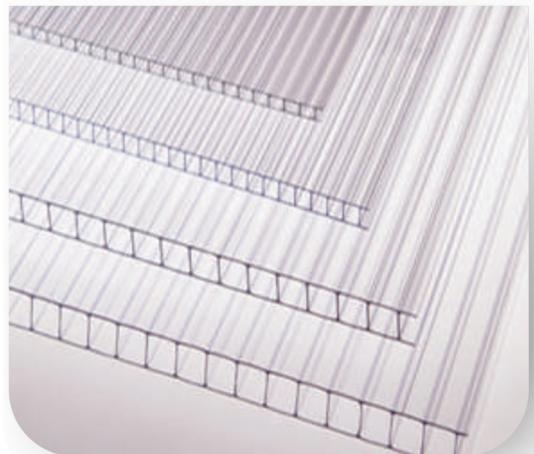
Colours
Clear, Opal
Greenish Blue
Bronze,
Green, Blue,
Grey

Dimensions
Width: up to 2100mm
Thickness: 1mm to 20mm

Type
<b>Options:</b> Embossed texture, Diamond texture, single sided UV protection & Both sided UV Protection
<b>Specials:</b> Special transparent, translucent & opaque options are available on request

Note: The technical data and values provided in this catalogue are for reference purposes only. Actual performance and specifications may vary depending on processing conditions and application requirements. The company reserves the right to modify data without prior notice.

# POLYCARBONATE MULTIWALL SHEET



## Product Description

**Multiwall Polycarbonate Sheets** are a highly engineered and evolved products, making them extremely versatile and perfectly suited to a very wide range of end-uses. The advantageous weight to performance ratio, ensures that Multiwall Sheets deliver excellent results at very economical values.

**Multiwall Polycarbonate Sheets have 2UV Co-extruded protection to ensure exceptional UV Resistance.** The hollow structure, combined with flexibility and excellent impact resistance ensure that these sheets can be deployed in a wide range of applications. **Multiwall Polycarbonate Sheets** are also an engineering designers' dream glazing material as they allow for very high levels of improvisation in their installation, light transmission control, thermal insulation and aesthetic appeal. The range of colours in which these sheets are available, adds another dimension to the visual appeal of **Multiwall Polycarbonate Sheets**, once they are installed. Sunlight offers a boundless source of energy that can be harnessed to reduce our dependence on artificial sources of light & energy. However, the UV spectrum of sunlight is harmful to human beings, man-made things used by humans on a day-to-day basis, plants and animals. **Multiwall Polycarbonate Sheets** allows us the liberty to harness sunlight without the harmful effects of Ultra-Violet radiation. UV filtered sunlight has been acknowledged by experts as the easiest way to improve human life, enhance performance and lead to healthier people. **Multiwall Polycarbonate Sheets** are not just a roofing or glazing material. They are a new way of looking up to your roof with the assurance of health & happiness.

## 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 Application

- 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

## Product Characteristics

General Test Items	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: 1.5 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

Structure	Minimum Bending Radius (mm)	U.Value (W/m <sup>2</sup> k)	LT (%) Clear
Twin Wall Version	700	3.9	80
	1050	3.6	78
	1400	3.4	76
	1750	3.2	73

## Available in

Colours
Clear, Opal white
Silver, Brown,
Greenish blue,
Green, Blue,
Bronze

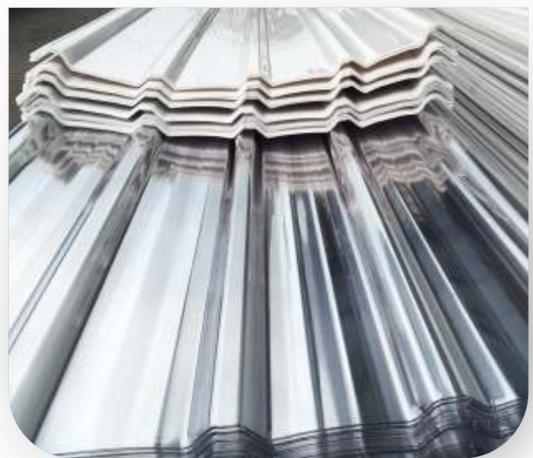
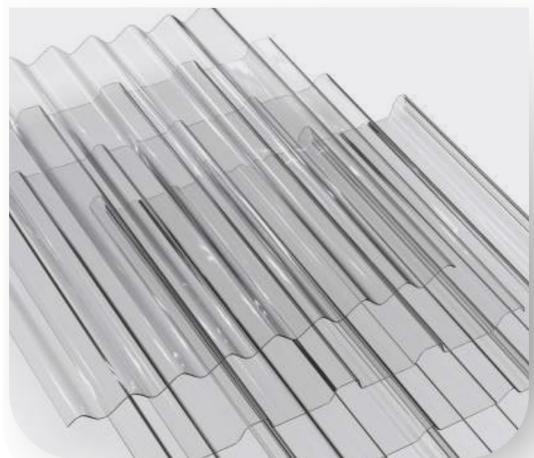
Thickness
4mm, 6mm, 8mm
10mm, 16mm

## Standard Size

2100 × 11800, 2100 × 5800,  
1220 × 11800, 1220 × 5800  
(Customize size also available)

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# POLYCARBONATE PROFILE SHEET



**Chennai Polyplast profiled polycarbonate sheets fall under 2 basic categories. They are**

1. Extruded Polycarbonate Profile Sheets
2. Cold Profiled Polycarbonate Sheets

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

## The Distinct advantages of Extruded Polycarbonate profile sheets are:

- The Sheets are stress free and extremely stable
- Greater details in profile are possible which include baby ribs & ant-capillary grooves
- Sheets can be manufactured to tailored lengths thereby reducing overlaps
- The sheets tend to retain their profile 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 Profile Sheets require large capital investment. Thus, a commitment to purchase from the Customers are required to develop these rollers as and when required.

## The Advantages of Cold profile polycarbonate sheets are:

- They do not require any specific die and hence most basic profiles can be manufactured
- Cold profiling method can be used to make profiles in tailor-made widths (Strip / Tube Lights)
- Chennai Polyplast Cold Profiled Polycarbonate Sheets offer 10 Years Conditional warranty after being profiled
- Small quantity orders can be processed quickly and conveniently

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

## Applications

- Industrial Skylights & Daylight Panels
- Daylight Panels for Pre-Engineered Buildings
- Skylight & Cladding Panels for Warehouses & Godowns
- All types of daylight applications in structures where profiled roofing sheets are used

Chennai Polyplast Profiled 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 Profiled Polycarbonate Sheets carry a 10 Years Conditional Warranty. Your assurance of savings for years to come. Plus, your contribution towards a Greener Planet Earth!!

## Available in

### Colours

Clear, Opal,  
Grey, Bronze  
Greenish blue,  
Green & Blue

### Thickness

0.8 mm to 3mm

### Width

Customize size available

## Type

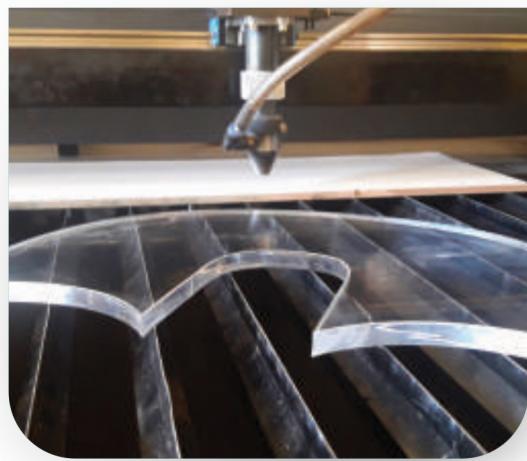
### Options

Embossed texture,  
Diamond texture,  
Single side UV  
protection & both  
sided UV protection

### Specials

Special transparent,  
Translucent & Opaque  
options are available on  
request.

# PMMA ACRYLIC SHEET



## Product Description

**PMMA Acrylic Sheet** by Chennai Polyplast, 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. PMMA Acrylic Sheet has better scratch resistance properties than other conventional sheet.

**PMMA Acrylic Sheet** manufactured by modified grade MMA resin which has higher scratch resistance with best impact resistance, weather resistance and thermal resistance. As per it's better weather and UV resistance, it's also perfect for outdoor application. It has 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.

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

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

## Applications

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

## Key Features

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

## General

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

## Mechanical Properties

General Properties	Condition	Test Method	Unit	Values
Tensile Strength at Break	23°C	ISO 527-2	MPa	83
Elongation 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>2</sup>	1
Rockwell Hardness M Scale		ISO 2039-2	M-scale92	

## Thermal Performance

General Properties	Condition	Test Method	Unit	Values
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

## Electrical Performance

General Properties	Condition	Test Method	Unit	Values
Dielectrical Strength		DIN53481	kV/mm	20
Dielectric Constant	1 KHz	DIN 53843		3,1

## Available in

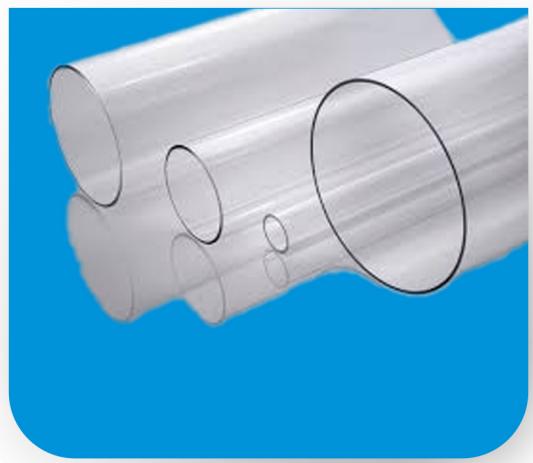
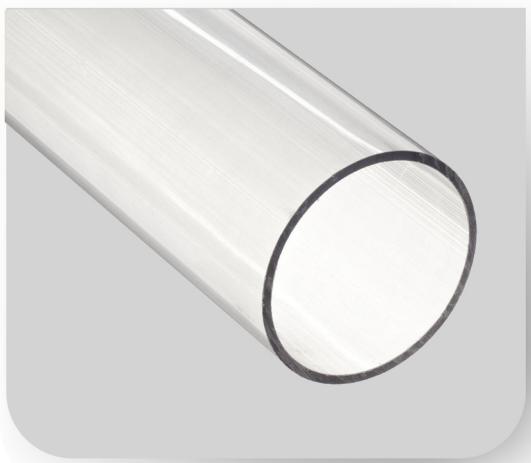
Colours
Clear, 0-40 Colours, White & Black (Custom colours are available)

Thickness
1mm to 60mm

Width
Upto 1220mm

Note: The technical data and values provided in this catalogue are for reference purposes only. Actual performance and specifications may vary depending on processing conditions and application requirements. The company reserves the right to modify data without prior notice.

# PMMA ACRYLIC TUBE



## Product Description

**Acrylic tubes** are hollow cylindrical products made from polymethyl methacrylate (PMMA) — a type of transparent thermoplastic often used as a lightweight and shatter-resistant alternative to glass. Our Acrylic Tubes are precision-engineered from high-quality PMMA (Polymethyl Methacrylate), offering superior transparency, weather resistance, and ease of fabrication. Ideal for a wide range of industrial, commercial, and decorative applications.

## Types of Acrylic Tubes

**Clear Acrylic Tube** – Maximum transparency; widely used for display and visual applications.

**Colored Acrylic Tube** – Available in various tints or solid colors.

**Frosted Acrylic Tube** – Matte or diffused finish for softer light transmission.

### Extruded vs Cast Acrylic Tubes:

**Extruded:** Cheaper, consistent diameter, good for general use.

**Cast:** Higher optical clarity, better strength, suitable for machining.

## Key Features

- Transparency  
Up to 93% light transmission (higher than glass)
- Durability  
Impact-resistant and weather-resistant
- Weight  
Less than half the weight of glass
- Temperature Resistance  
Typically usable from -40°C to +80°C
- Chemical Resistance  
Resistant to many acids and alkalis
- Machinability  
Easy to cut, drill, polish, bend (with heat)

## Applications

- Industry : Application Examples
- Construction : Handrails, protective covers, lighting
- Retail & Display : Product stands, displays, signs
- Aquariums : Water tanks, viewing tubes
- Medical : Equipment covers, sample tubes
- Lighting : LED diffusers, lamp housings
- Automotive : Custom interior & lighting modifications
- DIY/Hobby : Crafts, models, decorative projects

## Fabrication Methods

- Cutting : Saw or laser
- Drilling : Low-speed drill with plastic bit
- Polishing : Flame polishing, buffing, or sanding
- Bending : With heat (e.g., heat gun or oven)
- Forming : With heat (e.g., heat gun or oven)

## Precaution

- Avoid exposure to strong solvents like acetone.
- Can scratch easily; handle with care or use protective coatings.
- Not suitable for high-pressure or high-temperature applications (use polycarbonate for that).

## Common Sizes & Dimensions

Acrylic tubes are available in various outer diameters (OD), inner diameters (ID), and wall thicknesses, ranging from small tubes (e.g., 5 mm OD) to large ones (over 300 mm OD). Custom sizes are also available.

## Common Sizes & Dimensions

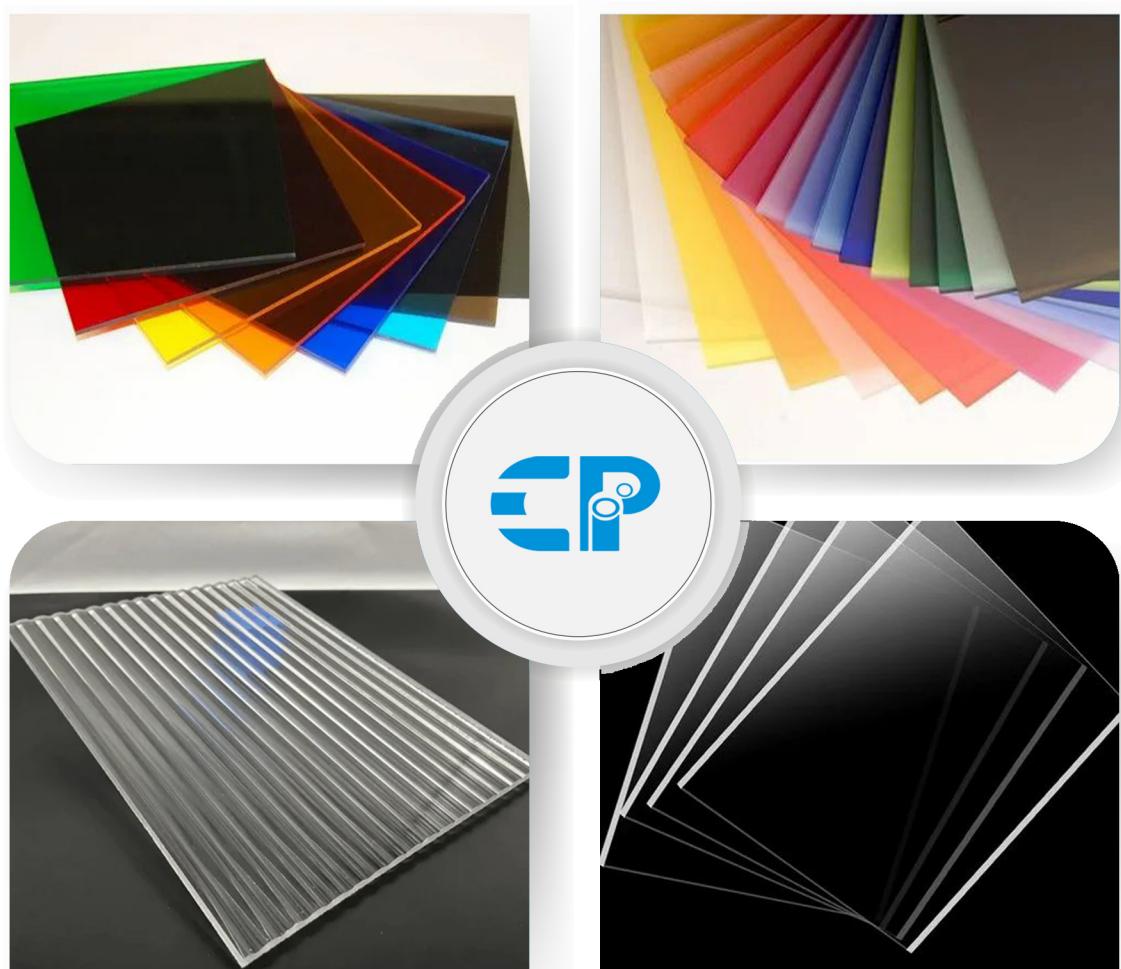
Standard Specification	Test Method		
Degree of purity	min. 99,90 %	M2-7	GC
Acid content	max. 0,0050 %	M4	Acid-base titr. Calculated as GMAA
Water content	max. 0,050 %	M3	According to Karl Fischer
Color	max. 5	M5	Pt-Co
Stabilization*	on request	M1	HPLC

Physical Data	
Molecular weight	100,1g/mol
Density	0,94 g/cm³ at 20 °C
Refractive index	1,415 at 20 °C
Boiling point	100,3 °C at 1013 hPa
Vapor pressure	37 hPa at 20 °C
Heat of vaporization	36,0 kJ/mol
Solidification point	- 48 °C
Heat of polymerization	55,6 kJ/mol
Viscosity	0,53 mPa.s (dynamic)
Ignition temperature	435 °C (DIN 51794)
Flash point	10 °C (DIN 51755)
Explosion limits in air	2,1 - 12,5 Vol. %
Solubility in water	15,3 g/l at 20 °C

Registration	
REACH	registered
Included in TSCA	+

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## GPPS (PS) SHEET



### Product Description

PS/ Plastic Sheet possess excellent Transparency & Compactness. Having Crystal Clear appearance on Transparent Sheet, light weight & easy to install. PS 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. PS 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.

**PS Textured Sheet:** Different Texture Finish on Surface of the Sheet caters to a wide range of application like Partitions, Ceiling, Window Panel, Door Panel, Printing & many more. PS 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 PS 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.

### Surface Texture

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

### Surface Protection

- Kraft Masking Paper
- PE Masking

### Applications

- Kitchen Cabinets
- Shower Doors
- Exhibition Stand
- Home Decor
- Photo Frame
- Display
- Fluorescent Light Panels
- Partition
- Wall Decoration
- Ceilings
- Sign Board
- Name Plates

### Test Properties

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

### Available in

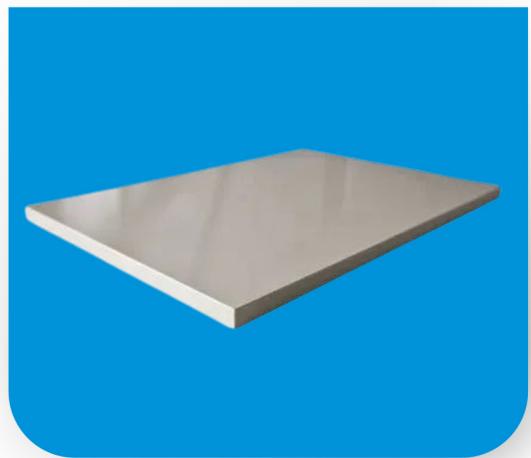
#### Colours

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 ~ 18 mm Standard Size  
**Length:** 8 X 4, 6 X 4, 4 X 3 (ft)  
**Width:** 915 mm - 1220 mm

# PP-H POLYPROPYLENE



## Product Description

PP-H - Polypropylene (homopolymer)

Polypropylene homopolymer materials are extremely strong and highly resistant to chemicals, corrosion and heat.

## Type of product

Compression moulded sheets,  
extruded sheets, round rods and  
welding rods

## Colours

- Natural, grey,
- white, white 9010,
- special colour

## Properties

- High rigidity
- Very high heat resistance
- Excellent weldability properties
- High chemical & corrosion resistance

## Typical areas of application

- Electroplating technology
- Ventilation & equipment manufacturing
- Laboratory technology
- Pump engineering

## General

General Properties	Test Method	Unit	Value
Density	DIN EN ISO 1183-1	g/cm³	0,91
Water absorption	DIN EN ISO 62	%	<0,1
Flammability (Thickness 3 mm/ 6 mm)	UL 94	HB	

## Mechanical Properties

Performance & Test Conditions	Test Method	Unit	Typical Values
Yield stress	DIN EN ISO 527	MPa	32
Elongation at break	DIN EN ISO 527	%	> 50
Tensile modulus of elasticity	DIN EN ISO 527	MPa	1500
Notched impact strength	DIN EN ISO 179	kJ/m²	5
Shore hardness	DIN EN ISO 868	scale D	72

## Thermal Performance

Performance & Test Conditions	Test Method	Unit	Typical Values
Crystalline grain melting range	ISO 11357-3	°C	162-167
Thermal conductivity	DIN 52612-1	W/(m*k)	0,20
Thermal capacity	DIN 52612	kJ/(kg*k)	1,70
Coefficient of linear thermal expansion	DIN 53752	10-6K	120-190
Service temperature, long term	Average	°C	0...100
Service temperature, short term (max.)	Average	°C	150
Vicat softening temperature	DIN EN ISO 306, Vicat B	°C	90

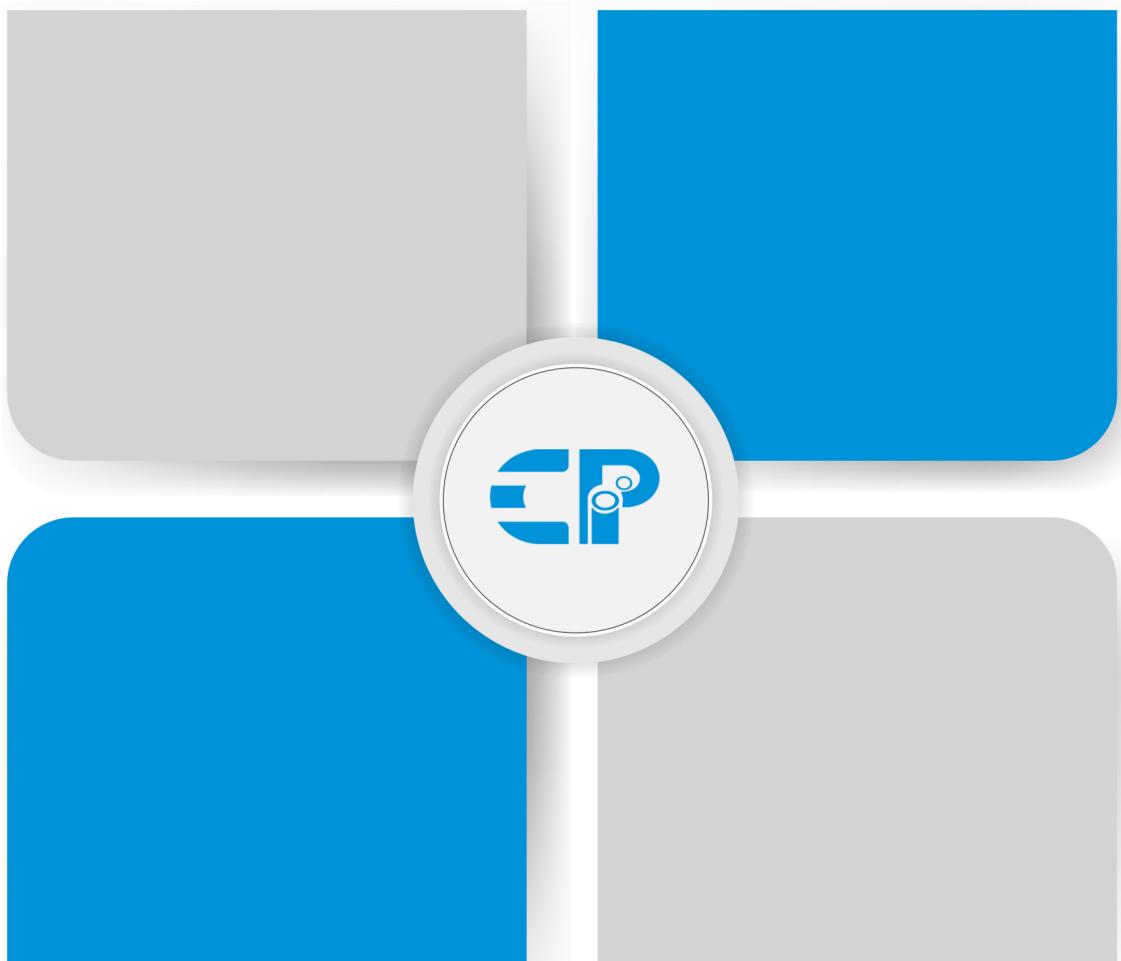
## Electrical Performance

Performance & Test Conditions	Test Method	Unit	Typical Values
Dielectric constant	IEC 60250	-	2,4
Dielectric dissipation factor ( $10^6$ Hz)	IEC 60250	-	0,00019
Volume resistivity	IEC 60093	$\Omega^*$ cm	$> 10^{14}$
Surface resistivity	IEC 60093	$\Omega$	$> 10^{14}$
Comparative tracking index	IEC 60112	-	600
Dielectric strength	IEC 60243	kV/mm	45

## Specification

Extruded sheet	Thickness 1...50mm	2.000 × 1.000mm 2.440 × 1.220mm	3.000 × 1.500mm 4.000 × 2.000mm
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Note: The technical data and values provided in this catalogue are for reference purposes only. Actual performance and specifications may vary depending on processing conditions and application requirements. The company reserves the right to modify data without prior notice.

**PP-C****Product Description**

PP-C - Polypropylene (copolymer)

Polystone® P Copolymer materials are outstanding for their toughness at temperatures down to -30 °C, as well as their high strength and high chemical and corrosion resistance. Standard: block copolymer, random copolymer on request.

**Type of product**

Compression moulded sheets, extruded sheets, round rods, square tubes, U profiles, welding rods.

**Properties**

- High rigidity
- High heat resistance
- Excellent weldability
- High chemical & corrosion resistance

**Colours**

- Natural, grey,
- white, white 9010,
- special colours

**Typical areas of application**

- Electroplating
- Ventilation & equipment manufacturing
- Laboratory technology
- Boat building

**General**

General Properties	Test Method	Unit	Value
Density	DIN EN ISO 1183-1	g/cm³	0,91
Water absorption	DIN EN ISO 62	%	<0,1
Flammability (Thickness 3 mm/ 6 mm)	UL 94	HB	

**Mechanical Properties**

Performance & Test Conditions	Test Method	Unit	Typical Values
Yield stress	DIN EN ISO 527	MPa	23
Elongation at break	DIN EN ISO 527	%	> 50
Tensile modulus of elasticity	DIN EN ISO 527	MPa	1100
Notched impact strength	DIN EN ISO 179	kJ/m²	40
Shore hardness	DIN EN ISO 868	scale D	69

**Thermal Performance**

Performance & Test Conditions	Test Method	Unit	Typical Values
Crystalline grain melting range	ISO 11357-3	°C	162-165
Thermal conductivity	DIN 52612-1	W/(m*k)	0,20
Thermal capacity	DIN 52612	kJ/(kg*k)	1,70
Coefficient of linear thermal expansion	DIN 53752	10-6K	120-190
Service temperature, long term	Average	°C	-30...100
Service temperature, short term (max.)	Average	°C	150
Vicat softening temperature	DIN EN ISO 306, Vicat B	°C	85

**Electrical Performance**

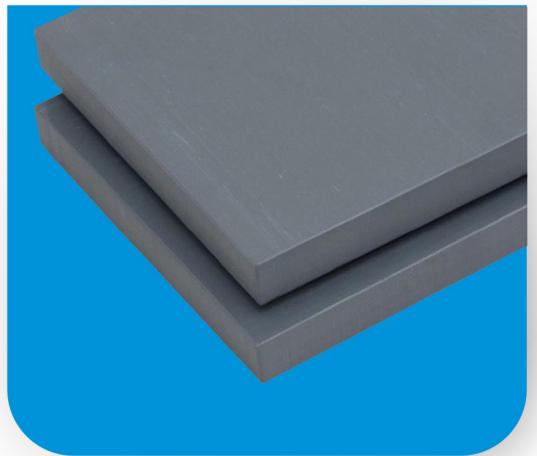
Performance & Test Conditions	Test Method	Unit	Typical Values
Dielectric constant	IEC 60250	-	2,5
Dielectric dissipation factor (10⁶HZ)	IEC 60250	-	0,00019
Volume resistivity	IEC 60093	Ω*cm	> 10¹⁴
Surface resistivity	IEC 60093	Ω	> 10¹³
Comparative tracking index	IEC 60112	-	600
Dielectric strength	IEC 60243	kV/mm	45

**Specification**

Extruded sheet	Thickness 1...50mm 2.440 × 1.220mm	3.000 × 1.500mm 4.000 × 2.000mm	
Compression moulded sheet	Thickness 8...200mm 2.000 × 1.000mm	1...100mm, 3.000 × 1.250mm 4.000 × 2.000mm, 6.000 × 2.500mm	8...180mm, 6.000 × 1.000mm, 6.000 × 2.000mm
Round rod	Length 1.000mm Length 2.000mm	Diameter 8...300mm	
Welding rod			

Note: The technical data and values provided in this catalogue are for reference purposes only. Actual performance and specifications may vary depending on processing conditions and application requirements. The company reserves the right to modify data without prior notice.

# PVC RIGID SHEETS & RODS



## Product Description

Our range of extruded PVC sheets and rods are light in weight with homogeneous close cell structure that makes them highly durable. Highly resistant to chemical, these products are extensively used in process industries and laboratories. We also offer our customer cost effective customization of PVC sheets exactly as per their requirement.

## Typical Application

- Chemical tanks and vessels
- Ducts and gutter to carry chemicals
- Control cabinets and panels
- Cold Storage
- Pharmaceuticals
- Equipment & structures for corrosive environments
- Hotels
- Hospitals

## Features

- Thermoforming
- Machining
- Bonding
- Drilling
- Welding
- Sawing

## Sizes Available

- Thickness available from: 1mm to 60mm
- Sizes available: 1mt x 2mt, 1.22mt x 2.44mt, 1.3mt x 2mt
- Rods Dia available from: 6mm dia to 300mm dia in 1 meter length

## Products

### Rigid Sheets

### Rods

## Mechanical Properties

Performance & Test Conditions	Test Method	Unit	Typical Values
Notched impact strength of cantilever beam, 23°C	ASTM D256	J/m	450
Yield tensile strength, 23°C, 50mm/min	ASTM D638	Mpa	50
Elongation at break, 23°C, 50mm/min	ASTM D638	%	10
The bending strength, 23°C, 2mm/min	ASTM 790	Mpa	70
Bending modulus, 23°C, 2mm/min	ASTM 790	Mpa	2400
Shore hardness D	ASTMD2240	-	95
The Density	ISO 1183	g/cm³	1.4

## Thermal Performance

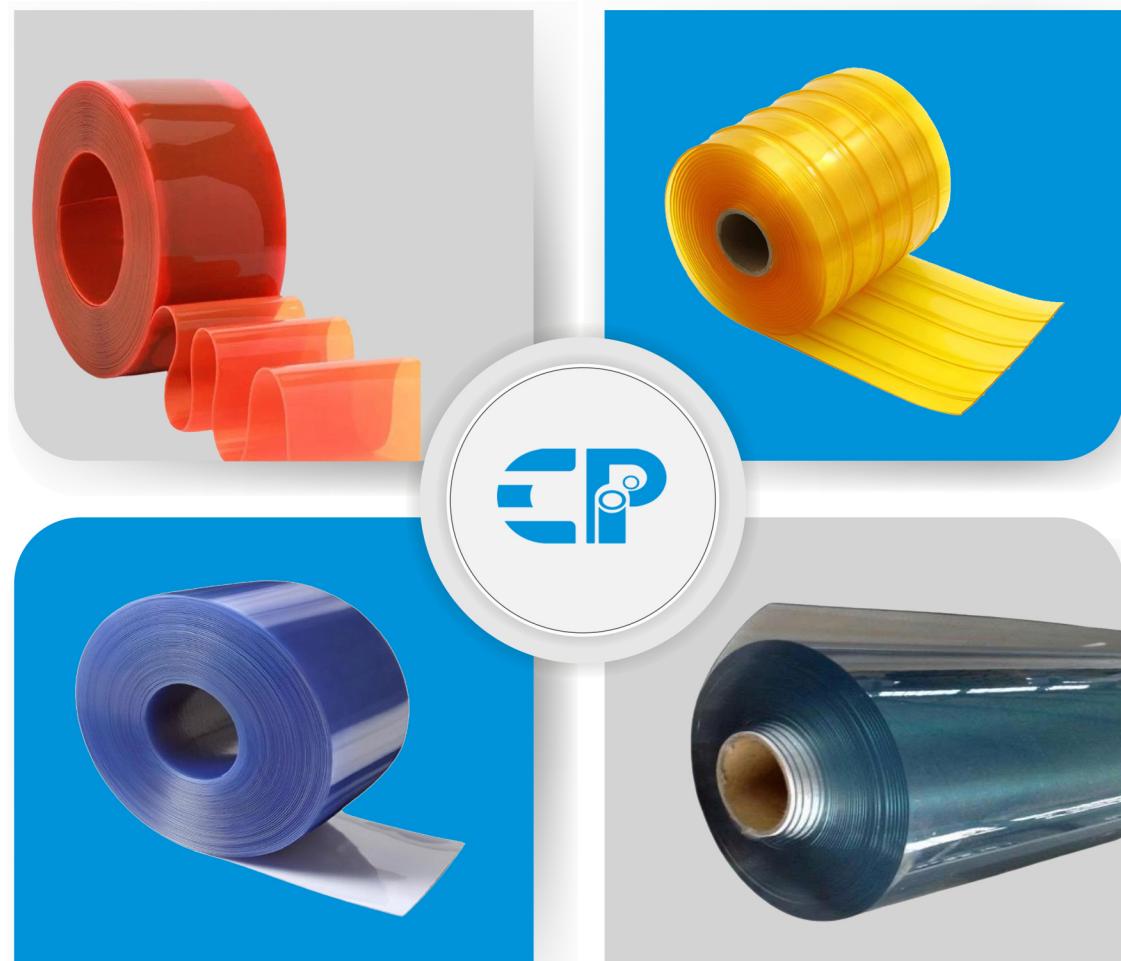
Performance & Test Conditions	Test Method	Unit	Typical Values
Thermal deformation temperature(HDT) (0.45Mpa)	ISO 75	°C	70
Melting point	-	°C	120
Long term operating temperature	-	°C	60
Short-term operating temperature	-	°C	90
Thermal conductivity	DIN 52612-1	W/(K-M)	-
Linear expansion coefficient	ASTM D696	10-5-1/K	8

## Electrical Performance

Performance & Test Conditions	Test Method	Unit	Typical Values
Dielectric strength	ASTM D150	KV-mm	30
Dielectric loss coefficient	ASTM D150	-	-
The volume resistance	ASTM D257	Ω.cm	10¹⁴
The surface resistance	ASTM D257	Ω	10¹⁶
Dielectric constant	ASTM D149	-	2.4

Note: The technical data and values provided in this catalogue are for reference purposes only. Actual performance and specifications may vary depending on processing conditions and application requirements. The company reserves the right to modify data without prior notice.

# PVC CURTAIN SHEETS



## Product Description

Our range of extruded PVC curtain sheets are light in weight with homogeneous close cell structure that makes them highly durable. Highly resistant to chemical, these products are extensively used in process industries and laboratories. We also offer our customer cost effective customization of PVC sheets exactly as per their requirement.

## Typical Application

- Chemical tanks and vessels
- Ducts and gutter to carry chemicals
- Control cabinets and panels
- Cold Storage
- Pharmaceuticals
- Equipment & structures for corrosive environments
- Hotels
- Hospitals

## Features

- Dust Prevention
- Clean Rooms
- Data Centres
- Offices
- Cold Storage
- Farming and Agriculture

## Sizes Available

- PVC Curtains available in the following sizes:  
2mm thick x 200mm width x 50mt length  
3mm thick x 200mm width x 50mt length
- PVC Soft Sheet available from 0.5mm thick to 10mm thickness
- Sizes: 1300 mm width x 10mt length

## Products

### Soft Sheets

### Curtains

## Mechanical Properties

Performance & Test Conditions	Test Method	Unit	Typical Values
Notched impact strength of cantilever beam, 23°C	ASTM D256	J/m	450
Yield tensile strength, 23°C, 50mm/min	ASTM D638	Mpa	50
Elongation at break, 23°C, 50mm/min	ASTM D638	%	10
The bending strength, 23°C, 2mm/min	ASTM 790	Mpa	70
Bending modulus, 23°C, 2mm/min	ASTM 790	Mpa	2400
Shore hardness D	ASTM D2240	-	95
The Density	ISO 1183	g/cm³	1.4

## Thermal Performance

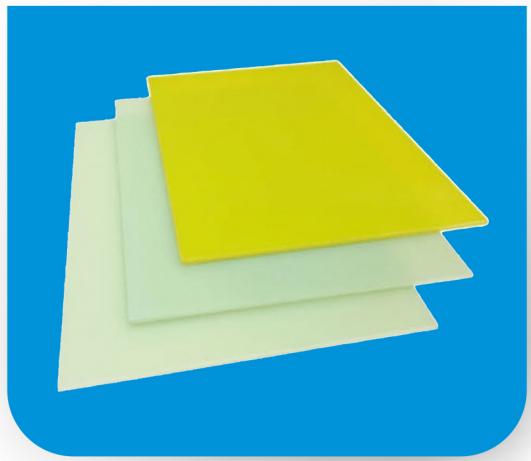
Performance & Test Conditions	Test Method	Unit	Typical Values
Thermal deformation temperature(HDT) (0.45Mpa)	ISO 75	°C	70
Melting point	-	°C	120
Long term operating temperature	-	°C	60
Short-term operating temperature	-	°C	90
Thermal conductivity	DIN 52612-1	W/(K-M)	-
Linear expansion coefficient	ASTM D696	10-5-1/K	8

## Electrical Performance

Performance & Test Conditions	Test Method	Unit	Typical Values
Dielectric strength	ASTM D150	KV-mm	30
Dielectric loss coefficient	ASTM D150	-	-
The volume resistance	ASTM D257	Ω.cm	10¹⁴
The surface resistance	ASTM D257	Ω	10¹⁶
Dielectric constant	ASTM D149	-	2.4

Note: The technical data and values provided in this catalogue are for reference purposes only. Actual performance and specifications may vary depending on processing conditions and application requirements. The company reserves the right to modify data without prior notice.

# EPOXY GLASS CLOTH LAMINATED SHEETS



## Product Description

Chennai Polyplast provides Glass Epoxy Sheets tailored for demanding industrial needs. Known for superior electrical insulation, robust mechanical strength, and chemical resistance, these sheets offer thermal stability and dimensional reliability. Ideal for electronics, aerospace, and automotive sectors, they ensure consistent performance and durability in varied conditions.

## Typical Application

- Mechanical Industry
- Body Equipments
- Housing Parts of Distribution Boards
- Transformers
- Switchgears
- Electrical Machines

## Features

- High Mechanical Strength
- Excellent Electrical Insulation
- Creep Resistance
- Good Thermal Resistance

## Specifications

- Nominal size: 1020 × 1220 mm, 1020 × 2040 mm, 1220 × 2470 mm
- Common thickness: 0.5 – 50 mm

Note: Other sizes or thicknesses are available according to mutual agreement

## Products

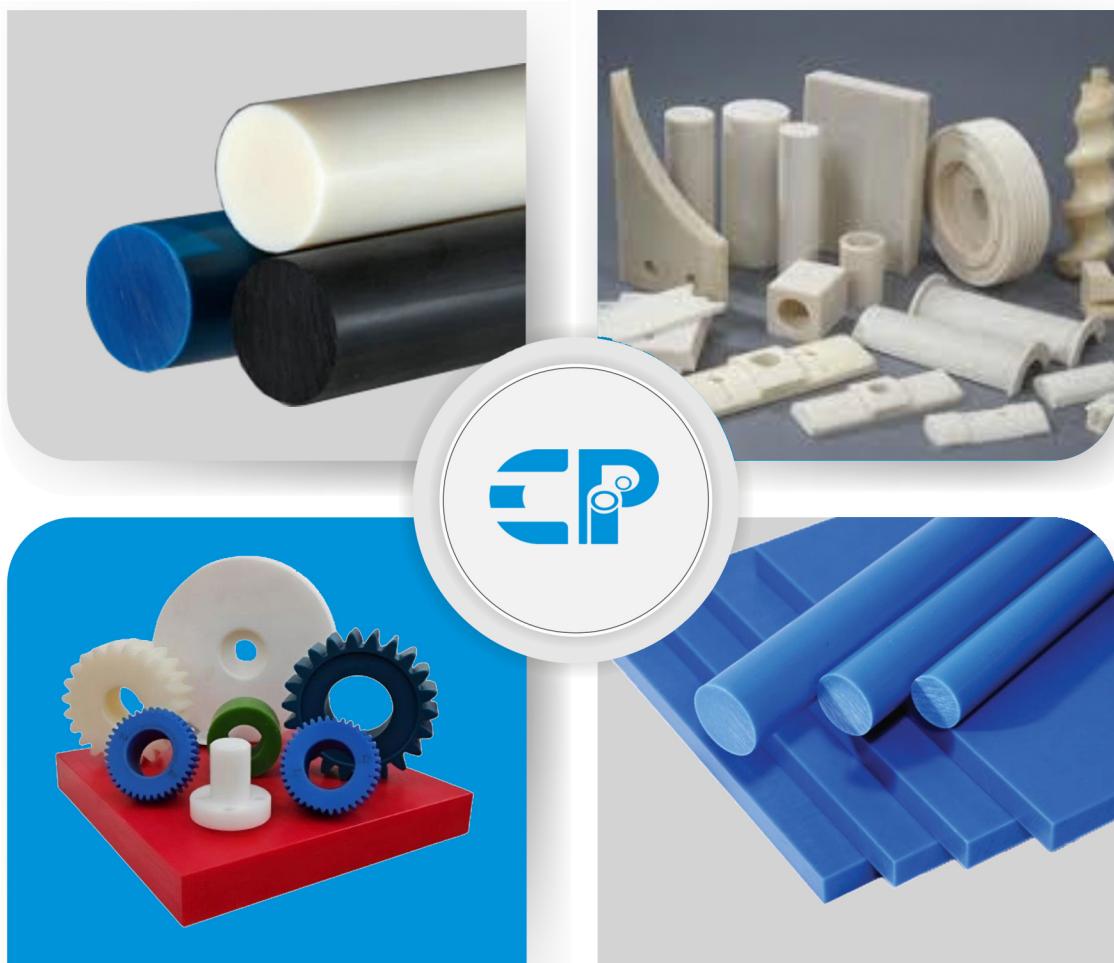
### Sheets

#### Technical Data Table

Item	Unit	3240	3240 - 3
Flexural strength perpendicular to laminations	MPa	340	320
Impact strength parallel to lamination	KJ/m <sup>2</sup>	33	30
Dielectric strength perpendicular to lamination (in oil 90+2)	kV/mm	14.2	14.2
Breakdown voltage parallel to lamination (in oil 90+2)	kV	35	30
Permittivity (48-62Hz)	-	5.5	-
Permittivity (1MHz)	-	5.5	-
Dissipation factor (48-62Hz)	-	0.04	-
Dissipation factor (1MHz)	-	0.04	-
Insulation resistance after impregnated in water (D-24/2)	Ω	5.0×10 <sup>8</sup>	1.0 × 10 <sup>8</sup>
Water absorption (D-24/23, 1.6mm in thickness)	mg	19	19
Colour	-	Yellow	Yellow
Density	-	1.7 - 1.9	1.7 - 1.9
Reference standard	-	Q/TXXFR002-2009	-

Note: The technical data and values provided in this catalogue are for reference purposes only. Actual performance and specifications may vary depending on processing conditions and application requirements. The company reserves the right to modify data without prior notice.

# POLYAMIDE - PA6 SHEETS & RODS



## Product Description

PA sheet and rod is a thermoplastic sheet extruded from polyamide (Nylon) PA6. It has high mechanical strength, wear resistance, easy processing, good creep resistance and mechanical shock absorption. The service temperature is -40°C to 110°C.

## Typical Application

- Engineering
- Automobile
- Textile
- Material Handling Equipments
- Paper / Sugar Mills
- Bottling & Food
- Railways
- Processing

## Products

[MOS2 Rods](#)
[OILON Rods](#)
[Square Rods](#)
[Cast Nylon](#)
[Slipper Pads](#)

## Features

- High Mechanical Strength
- Wear Resistance
- Creep Resistance
- Mechanical Shock Absorption

## Sizes Available

- Thickness available from: 3mm to 200mm
- Sizes available: 1mt x 2mt, 1.22mt x 2.44mt, 1.22mt x 2mt, 1.22mtr x 3mtr
- Rods Dia available from: 20mm dia to 40mm dia
- Squares available from: 20mm sq to 100mm sq
- Profiles available as per customer requirement

## Mechanical Properties

Performance & Test Conditions	Test Method	Unit	Typical Values
Notched impact strength of cantilever beam, 23°C	ASTM D256	KJ/m <sup>2</sup>	8
Yield tensile strength, 23°C, 50mm/min	ASTM D638	Mpa	75
Elongation at break, 23°C, 50mm/min	ASTM D638	%	5
The bending strength, 23°C, 2mm/min	ASTM 790	Mpa	90
Bending modulus, 23°C, 2mm/min	ASTM 790	Mpa	2200
Shore hardness D	ASTM D2240	-	80
The Density	ISO 1183	g/cm <sup>3</sup>	1.13

## Thermal Performance

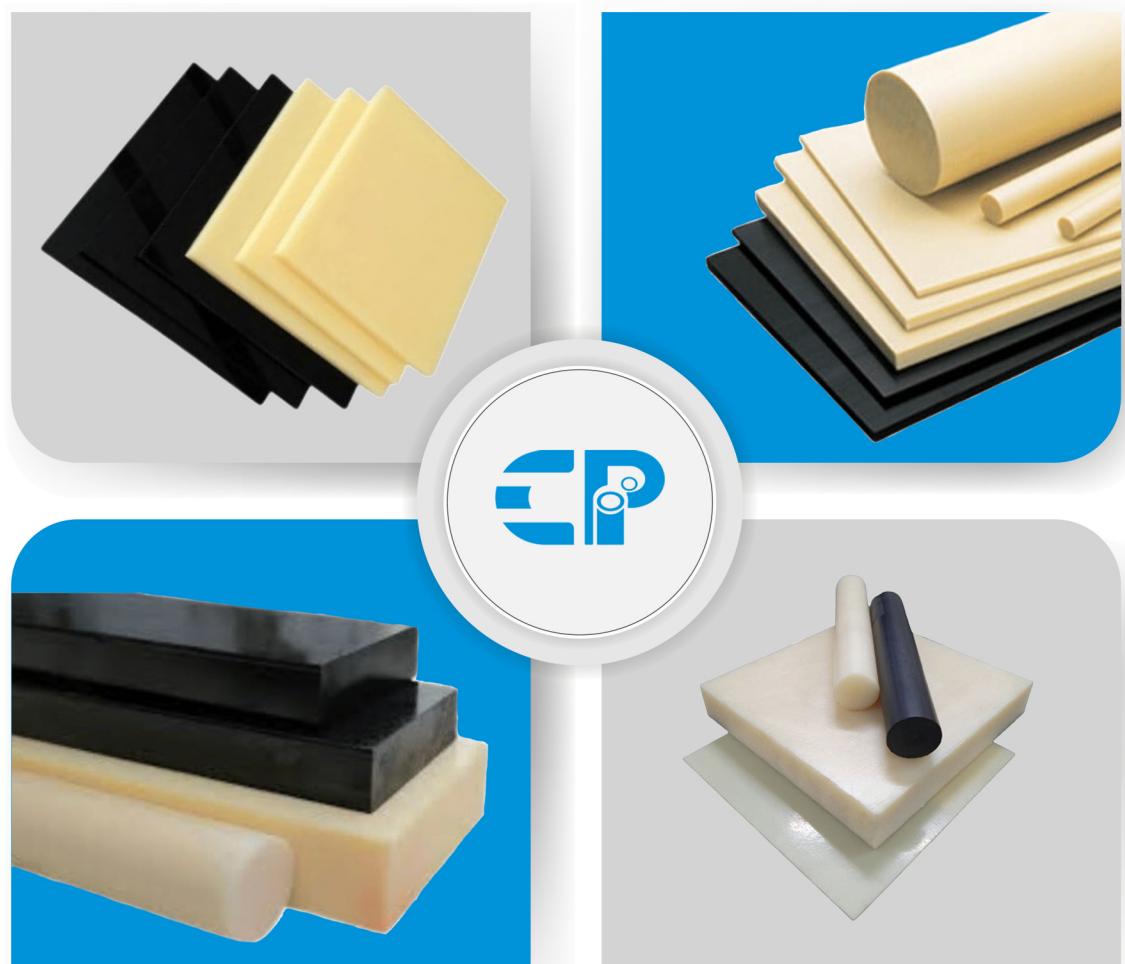
Performance & Test Conditions	Test Method	Unit	Typical Values
Thermal deformation temperature (HDT) (0.45Mpa)	ISO 75	°C	70
Melting point	-	°C	220
Long term operating temperature	-	°C	80
Short-term operating temperature	-	°C	110
Thermal conductivity	DIN 52612-1	W/(K-M)	0.23
Linear expansion coefficient	ASTM D696	10-5-1/K	8

## Electrical Performance

Performance & Test Conditions	Test Method	Unit	Typical Values
Dielectric strength	ASTM D150	KV-mm	25
Dielectric loss coefficient	ASTM D150	-	0.032
The volume resistance	ASTM D257	Ω.cm	10 <sup>15</sup>
The surface resistance	ASTM D257	Ω	10 <sup>15</sup>
Dielectric constant	ASTM D149	-	4.2

Note: The technical data and values provided in this catalogue are for reference purposes only. Actual performance and specifications may vary depending on processing conditions and application requirements. The company reserves the right to modify data without prior notice.

# ABS - ACRYLONITRILE BUTADIENE STYRENE SHEETS & RODS



## Product Description

Chennai Polyplast offers a superior range of ABS products renowned for their toughness, versatility, and durability, surpassing industry standards. We provide high-performance solutions tailored to diverse applications, ensuring robust durability, efficient fabrication, and resilience in challenging conditions. Trust Chennai Polyplast for ABS products that exceed expectations with engineering excellence.

## Typical Application

- Refrigeration Industry
- Vacuum Construction
- 3D Building Materials
- Power-Tool Housing
- Machine Prototype Construction
- Keyboard Keys
- Pipes & Fittings

### Features

- Excellent impact resistance
- Easy electroplating
- Easy coating and coloring
- Easy processing

### Sizes Available

- Sheet Thickness available from: 5mm to 100mm
- Sheet Sizes available in: 1000mm x 2000mm, 1200mm x 2440mm, 1220mm x 2440mm
- Rods dia available from: 16mm dia to 200mm dia in 1 mt length

### Products

[Sheets](#)
[Rods](#)

### Mechanical Properties

Performance & Test Conditions	Test Method	Unit	Typical Values
Notched impact strength of cantilever beam, 23°C	ASTM D256	J/m	200
Yield tensile strength, 23°C, 50mm/min	ASTM D638	Mpa	50
Elongation at break, 23°C, 50mm/min	ASTM D638	%	40
The bending strength, 23°C, 2mm/min	ASTM 790	Mpa	60
Bending modulus, 23°C, 2mm/min	ASTM 790	Mpa	1800
Shore hardness D	ASTMD2240	-	80

### Thermal Performance

Performance & Test Conditions	Test Method	Unit	Typical Values
Thermal deformation temperature (HDT) (0.45Mpa)	ISO 75	°C	80
Melting point	-	°C	150
Long term operating temperature	-	°C	80
Short-term operating temperature	-	°C	100
Thermal conductivity	DIN 52612-1	W/(K-M)	0.18
Linear expansion coefficient	ASTM D696	10-5-1/K	9

### Electrical Performance

Performance & Test Conditions	Test Method	Unit	Typical Values
Dielectric strength	ASTM D150	KV-mm	22
Dielectric loss coefficient	ASTM D150	-	0.015
The volume resistance	ASTM D257	Ω.cm	10 <sup>14</sup>
The surface resistance	ASTM D257	Ω	10 <sup>16</sup>
Dielectric constant	ASTM D149	-	3.3

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# PEEK - POLYETHERKETONE SHEETS AND RODS



## Product Description

PEEK - Polyetheretherketone  
Semi - crystalline thermoplastic

## Properties

- Excellent dimensional stability
- Flame retardant and self-extinguishing
- Very high resistance to high-energy radiation
- Very good sliding properties
- High abrasion resistance
- Optimised balance of stiffness, tensile strength and impact strength
- Low creep tendency
- Good machinability
- Good thermoformability
- Good adhesive properties
- Good weldability
- High dimensional stability under heat
- Very high continuous service temperature
- Low coefficient of thermal expansion
- Good electrical insulating properties over a broad temperature range

## Typical Areas of Application

- Components need to be exposed under high temperature, mechanical load, X-ray or gamma ray.
- Antenna electronics, transportation, medical technology, aviation and chemical engineering, such as electrical insulators and housing, electric wire and cable insulation, rotor spider, friction disc and sealing parts, shock absorber, analytical equipment components, dialysis equipment components, valve lining, water pump impeller.

## General

General Properties	Test Method	Unit	Value
Density	DIN EN ISO 1183-1	g/cm³	1,31
Water absorption	DIN EN ISO 62	%	0,2
Flammability (Thickness 3 mm/ 6 mm)	UL 94	VONO	

## Mechanical Properties

Performance & Test Conditions	Test Method	Unit	Typical Values
Yield stress	DIN EN ISO 527	MPa	110
Elongation at break	DIN EN ISO 527	%	20
Tensile modulus of elasticity	DIN EN ISO 527	MPa	4000
Shore hardness	DIN EN ISO 868	scale D	88

## Thermal Performance

Performance & Test Conditions	Test Method	Unit	Typical Values
Crystalline grain melting range	ISO 11357-3	°C	343
Thermal conductivity	DIN 52612-1	W/(m*k)	0,25
Thermal capacity	DIN 52612	kJ/(kg*k)	1,34
Coefficient of linear thermal expansion	DIN 53752	10⁻⁶K	50
Service temperature, long term	Average	°C	-60..250
Service temperature, short term (max.)	Average	°C	310
Vicat softening temperature	DIN EN ISO 75, Verf. A,HDT	°C	152

## Electrical Performance

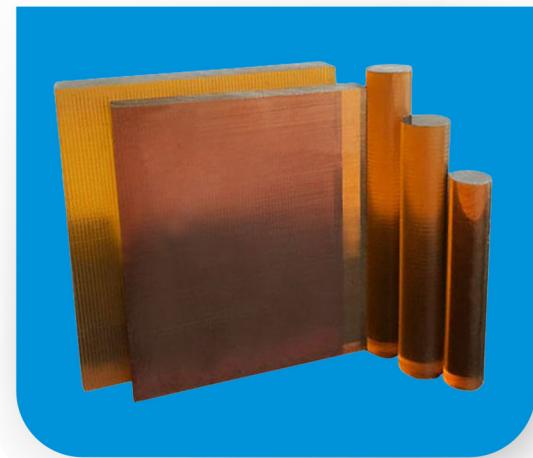
Performance & Test Conditions	Test Method	Unit	Typical Values
Dielectric constant	IEC 60250	-	3,2
Dielectric dissipation factor (50 Hz)	IEC 60250	-	0,001
Volume resistivity	IEC 60093	Ω*cm	4,9*10¹⁶
Surface resistivity	IEC 60093	Ω	10¹⁸
Dielectric strength	IEC 60243	kV/mm	20

## Specification

Sheets	Thickness : 2mm to 100mm	Size : 1220mm to 620mm
Round rod	Thickness : 6mm dia to 200mm dia	Size : upto 1000mm long

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# PEI - POLYETHERIMIDE



## Product Description

PEI - Polyetherimide

Amorphous thermoplastic transparent with trace of brown

## Properties

- Extremely high flame resistance
- Very low smoke development
- Very high stiffness, tensile strength & hardness over a broad temperature range
- Good machinability
- Good thermoformability
- Good adhesive properties
- Good weldability
- Low thermal coefficient of expansion
- High dimensional stability under heat
- Very high continuous service temperature
- High electric / dielectric strength virtually unchanging in a broad temperature and electrical frequency range

## Typical Areas of Application

- Parts that must satisfy special requirements with regard to fire properties and mechanical strength.
- Electrical & electronic industry: e.g. high voltage circuit breaker housings, components for microwave ovens, plug connections, terminal strips
- Medical technology: e.g. instrument handles, adapters
- Aircraft construction: passenger cabin panels

## General

General Properties	Test Method	Unit	Value
Density	DIN EN ISO 1183-1	g/cm <sup>3</sup>	1,27
Water absorption	DIN EN ISO 62	%	0,50
Flammability (Thickness 3 mm/ 6 mm)	UL 94	VO/V0	VO/V0

## Mechanical Properties

Performance & Test Conditions	Test Method	Unit	Typical Values
Yield stress	DIN EN ISO 527	MPa	110
Elongation at break	DIN EN ISO 527	%	12
Tensile modulus of elasticity	DIN EN ISO 527	MPa	3100
Notched impact strength(charpy)	DIN EN ISO 179	kJ/m <sup>2</sup>	4,0
Ball indentation hardness	DIN EN ISO 2039-1	MPa	220
Shore hardness	DIN EN ISO 868	scale D	86

## Thermal Performance

Performance & Test Conditions	Test Method	Unit	Typical Values
Thermal conductivity	DIN 52612-1	W/(m*k)	0,24
Thermal capacity	DIN 52612	kJ/(kg*k)	1,1
Coefficient of linear thermal expansion	DIN 53752	10 <sup>-6</sup> K <sup>-1</sup>	45
Service temperature, long term	Average	°C	-50...-170
Service temperature, short term (max.)	Average	°C	210
Heat deflection temperature	DIN EN ISO 75, method A	°C	200

## Electrical Performance

Performance & Test Conditions	Test Method	Unit	Typical Values
Dielectric constant	IEC 60250	-	3,2
Dielectric dissipation factor (50Hz)	IEC 60250	-	0,0015
Volume resistivity	IEC 60093	Ω*cm	10 <sup>15</sup>
Surface resistivity	IEC 60093	Ω	10 <sup>15</sup>
Comparative tracking index	IEC 60112	-	150
Dielectric strength	IEC 60243	kV/mm	30

## Specification

Extruded sheet	Thickness - 6...100mm 1.000 x 620mm
Round rod	Length - 1.000mm/ Diameter - 6...200mm

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# PHENOLIC FABRIC SHEETS & RODS



## Product Description

**Phenolic Fabric Sheets & Rods** are high-strength, wear-resistant, and electrically insulating composite materials made by impregnating layers of cotton fabric with phenolic resin under high pressure and temperature.

This results in a dense, rigid, and durable material that combines:

- The strength and wear resistance of cotton fabric
- The chemical, electrical, and thermal resistance of phenolic resin

They are widely used in industries requiring high mechanical strength, impact resistance, low friction, and long-term durability.

## Main Benefits

- High mechanical strength (tensile, compressive & flexural)
- Excellent wear & abrasion resistance
- Low friction & self-lubricating properties
- Electrical insulation (stable under humidity & heat)
- Thermal resistance (continuous: 120–140°C, short-term: 160°C)
- Dimensional stability under load
- Chemical resistance to oils, fuels, solvents, weak acids & alkalis
- Lightweight alternative to metals
- Excellent machinability into precision parts

## Typical Application

### Industrial & Mechanical

- Bearings, bushings, thrust washers
- Gears, sprockets, pulleys
- Wear plates, rollers, cams
- Clutch & brake components

### General Engineering

- Machine tool guides
- Hydraulic & pneumatic sealing parts
- Support rings and spacers

### Electrical & Electronics

- Insulating components
- Transformer & motor slot wedges
- Terminal boards & switchgear

### Automotive & Transport

- Brake linings & clutch plates
- Shock & vibration damping parts

## Product Characteristics

Property	Description
Density	1.35 – 1.45 g/cm³
Tensile Strength	100 – 150 MPa
Flexural Strength	160 – 250 MPa
Compressive Strength	250 – 300 MPa
Impact Strength	8 – 15 kJ/m²
Heat Resistance	120 – 140 °C
Electrical Breakdown	10 – 15 kV/mm

## Specification

Grade	Description	Applications
Fine Weave Cotton Phenolic	Low friction, high precision	Bearings, bushings, gears
Medium Weave Cotton Phenolic	Balance of strength & machinability	Gears, rollers, pulleys
Coarse Weave Cotton Phenolic	Heavy-duty load bearing	Cranes, press tools, Construction machinery

## Available in

### Sheets (Laminates)

- Thickness: 1 mm – 100 mm (custom on request)
- Standard Sizes: 1000×1000 mm / 1220×1220 mm / 2000×1000 mm

### Rods

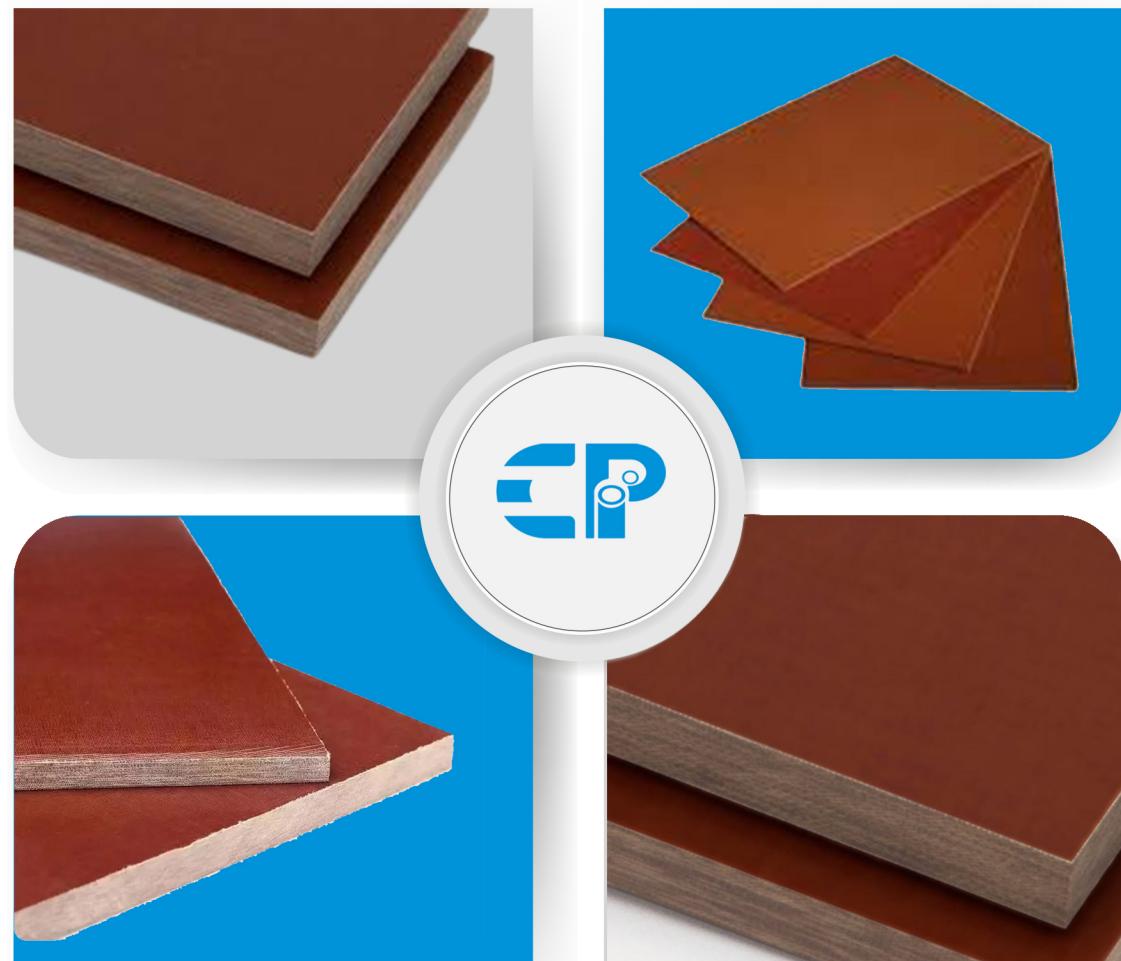
- Diameter: 10 mm – 300 mm
- Length: 1000 mm (custom available)

### Machined Parts

- Bushings, bearings, CNC-turned profiles

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# PHENOLIC PAPER SHEETS



## Product Description

**Phenolic Paper Sheets & Rods** are cost-effective, rigid, and electrically insulating thermoset laminates produced by impregnating high-quality cellulose paper with phenolic resin under heat and pressure.

The result is a strong, lightweight, and machinable material that offers:

- Excellent electrical insulation for low & medium voltage applications
- Moderate mechanical strength for structural and support components
- Cost-effectiveness compared to fabric or glass laminates

They are widely used in **switchgear, transformers, control panels, and general insulation applications** where cost and electrical performance are critical.

## Main Benefits

- Excellent electrical insulation properties
- Lightweight yet rigid material
- More economical than fabric/glass laminates
- Good machinability (cutting, drilling, turning)
- Moderate mechanical strength (sufficient for insulation & support)
- Stable dimensions under normal load
- Heat resistance: continuous up to 105–120°C
- Resistant to oils, waxes, and many solvents

## Typical Application

### Electrical & Electronics

- Switchgear & panel boards
- Transformer & motor insulation parts
- Terminal boards, fuse carriers, base plates
- Insulating spacers, washers & control panel parts

### Other Uses

- Appliances insulation
- Cost-effective substitute for higher-grade laminates in light-duty use.

### Industrial & Mechanical

- Jigs & fixtures requiring insulation
- Support plates, covers, liners
- Low-load machine components

## Product Characteristics

Property	Value
Density	1.3 – 1.4 g/cm³
Tensile Strength	60 – 90 MPa
Flexural Strength	100 – 150 MPa
Compressive Strength	150 – 200 MPa
Heat Resistance	105 – 120 °C
Electrical Breakdown	9 – 12 kV/mm

## Specification

Grade	Description	Applications
General Electrical Grade	Good insulation	Switchgear, panels, terminals
Mechanical Grade	Higher strength	Low-load mechanical parts, fixtures
High Electrical Grade	Superior dielectric properties	High-voltage insulation

## Available in

### Sheets (Laminates)

- Thickness: 0.5 mm – 100 mm
- Standard Sizes: 1220×2440 mm

### Custom Machined Parts

- Washers, Spacers, Insulating panels

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# BAKELITE SHEETS



## Product Description

**Bakelite (Phenolic Laminates)** is one of the earliest thermosetting plastics ever invented. It is manufactured by impregnating layers of paper or fabric with phenolic resin and curing them under heat and high pressure.

The result is a rigid, tough, and durable laminate with:

- Excellent electrical insulation
- Good heat resistance
- Strong mechanical properties

Today, Bakelite Sheets & Rods are widely used in **electrical, electronic, industrial, and consumer applications**.

## Main Benefits

- Excellent electrical insulation
- Heat resistance up to 130–150°C
- Strong compressive & flexural strength
- Lightweight and rigid
- Easy machinability (cutting, drilling, turning)
- Moisture & chemical resistance (oils, mild acids & alkalis)
- Economical compared to engineering plastics

## Typical Application

### Electrical & Electronics

- Switchgear panels, insulation barriers
- Terminal boards, fuse bases, connector housings
- Transformer, motor & generator insulation parts
- PCB base plates & protective covers

### Consumer Applications

- Cooker handles & appliance panels
- Decorative laminates (historical use)

### Industrial Uses

- Machine parts requiring insulation & strength
- Gaskets, spacers, support blocks
- Jigs & fixtures in manufacturing lines
- Tool & appliance handles, knobs

## Product Characteristics

Test Method	Unit	Typical Values
Vertical Bending Strength	MPa	≥100
Parallel Impact Strength	KJ/M2	-
Grain Strength	N	≥2800
Vertical Electrical Strength	kV/mm	5.7 - 12.2
Parallel Layer Breakdown Voltage	kV	≥15
Dielectric Loss Factor 1MHz	Tg8	-
Parallel Layer Insulation Resistance Normal Behavior	Ω	≥1.0x10 <sup>9</sup>
Parallel Layer Insulation Resistance After Tide	Ω	≥1.0x10 <sup>7</sup>
Water Suction Column	mg	190 - 480
Heat Resistance Grade	B	130°C

## Specification

Grade	Description	Applications
Paper-Based Bakelite (Phenolic Paper)	Low-cost insulation	Panels, pcb base plates, terminal boards
Fabric-Based Bakelite (Phenolic Fabric)	Higher mechanical strength	Gears, bearing cages, wear pads
Carbon / Graphite Filled	Enhanced wear & lubrication	Heavy-duty sliding & mechanical parts

## Available in

### Sheets (Laminates)

- Thickness: 0.5 mm – 100 mm
- Standard Sizes: 1000×1000 mm / 1220×1220 mm / 2000×1000 mm

### Rods

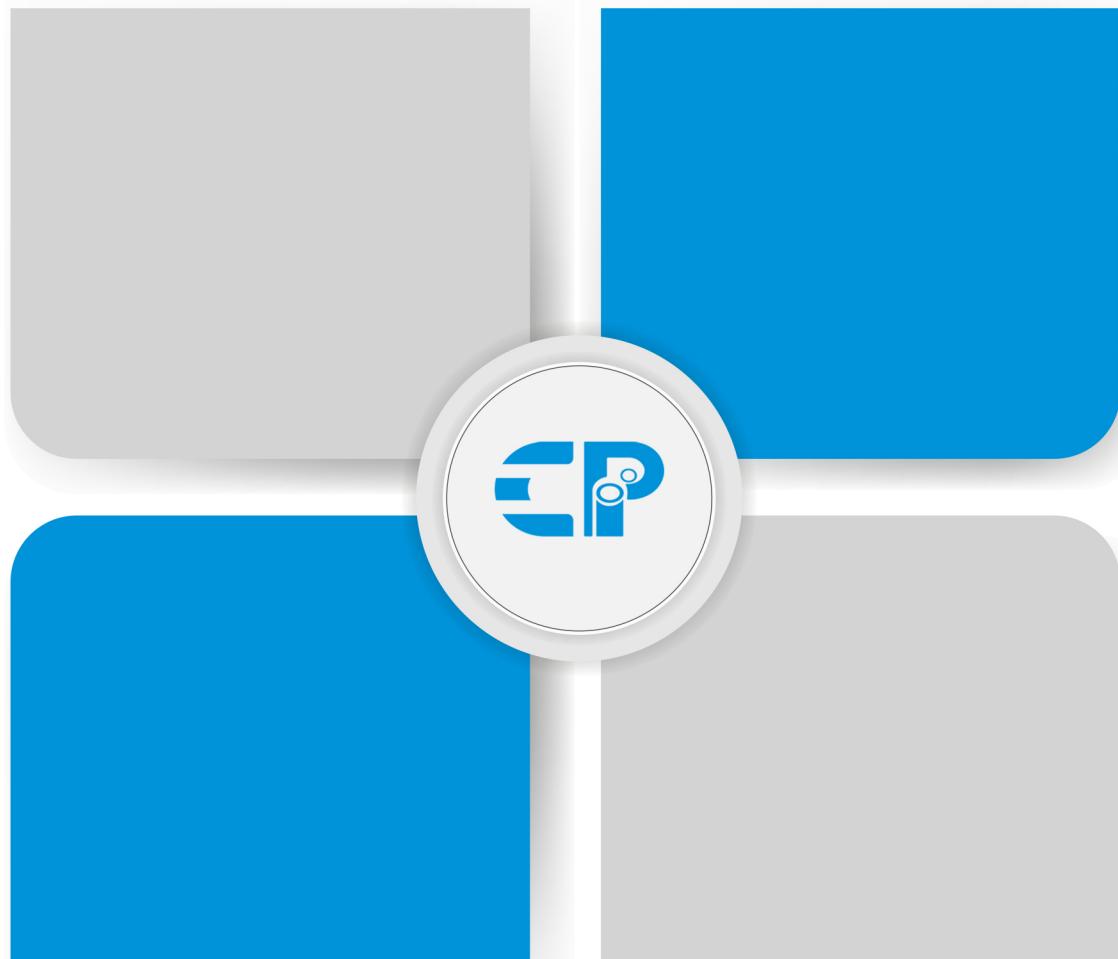
- Diameter: 10 mm – 150 mm
- Length: 1000 mm

### Custom Machined Parts

- Washers, insulating blocks, spacers, terminal plates

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# BAKELITE ESD SHEETS & RODS



## Product Description

**Bakelite ESD (Electrostatic Dissipative Phenolic Laminates)** is manufactured by impregnating paper or fabric layers with phenolic resin and conductive/dissipative additives, cured under high temperature & pressure.

The result is a rigid, durable, and electro-dissipative laminate that:

- Prevents static charge build-up & sudden discharge
- Provides excellent insulation and mechanical strength
- Withstands heat, humidity, and wear

It is an ideal material for **electronics, semiconductor, and electrical industries** where **ESD safety** is critical.

## Main Benefits

- ESD Safe – Surface resistivity:  $10^6$  –  $10^9$  Ω (dissipative range)
- Excellent electrical insulation (high dielectric strength)
- High compressive, flexural & impact strength
- Heat resistant up to 130–150°C
- Moisture & chemical resistant
- Machinable into custom parts (washers, jigs, spacers)
- Long service life – wear & aging resistant

## Typical Application

### Electronics & Semiconductor

- PCB assembly work surfaces, jigs & fixtures
- Anti-static housings, covers, and trays
- Handling tools for ESD-sensitive devices

### Electrical Insulation

- Terminal boards, fuse bases, switchgear components
- Insulating barriers in transformers, relays, motors

### Industrial Uses

- ESD-safe machine parts & fixtures
- Support blocks, spacers & anti-static plates
- Fixtures for automated assembly lines

## Product Characteristics

Property	Value
Density	1.35 – 1.45 g/cm <sup>3</sup>
Tensile Strength	80 – 120 MPa
Flexural Strength	120 – 170 MPa
Compressive Strength	250 – 300 MPa
Continuous Service Temp.	130 – 150 °C
Electrical Breakdown Voltage	9 – 12 kV/mm
Surface Resistivity (ESD)	$10^6$ – $10^9$ Ω
Water Absorption	<1.0 %

## Available in

### Sheets (Laminates)

- Thickness: 1 mm – 100 mm
- Standard Sizes: 1000×1000 mm / 1220×1220 mm / 2000×1000 mm

### Rods

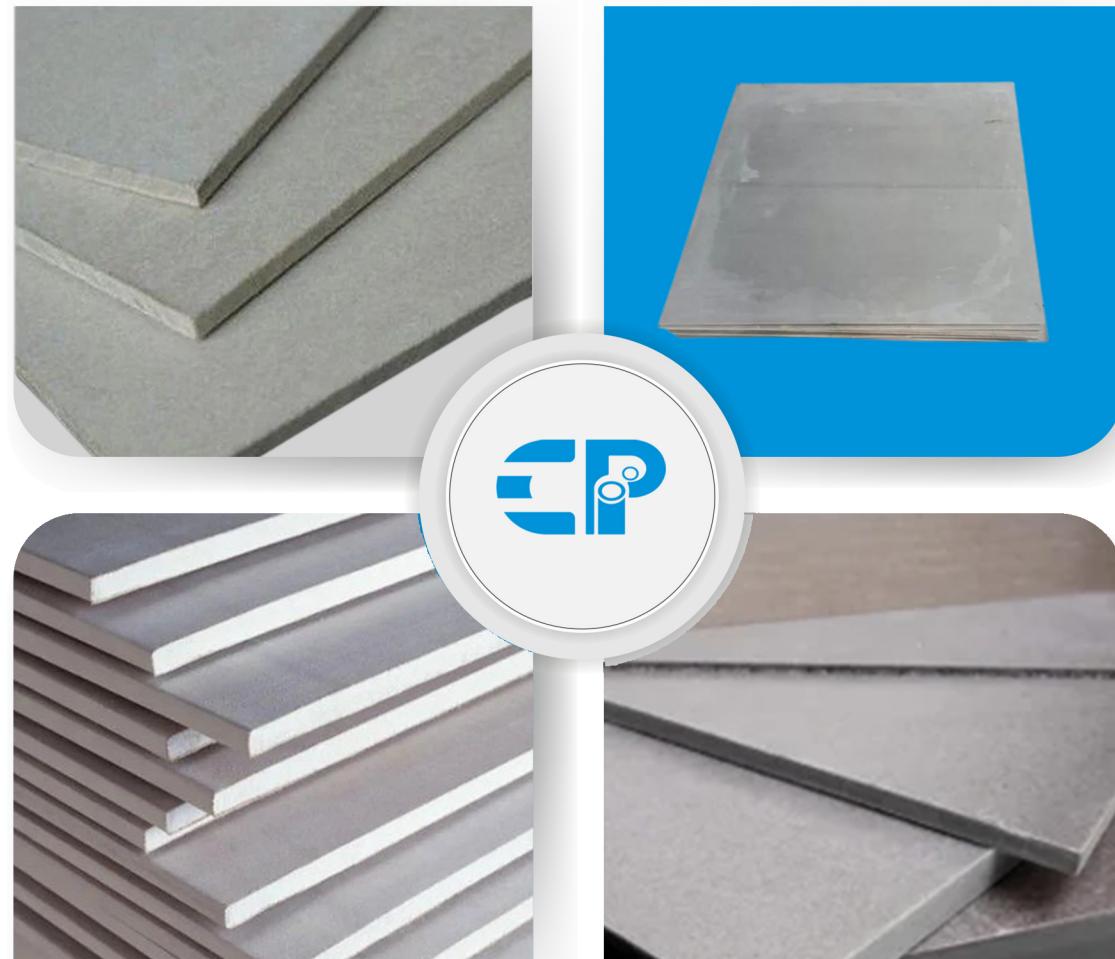
- Diameter: 10 mm – 150 mm
- Length: 1000 mm / 2000 mm

### Custom Machined Components

- Washers, insulating blocks, jigs, plates, fixtures

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# SYNDANIO SHEETS



## Product Description

**Syndanio** is a cement-and-fiber composite insulation material, manufactured in rigid sheets and rods.

- Non-asbestos fiber grades are widely available (some variants may still contain asbestos).
- Designed for thermal and electrical insulation in heat-intensive applications.
- Offers high mechanical strength, low thermal conductivity, and durability under industrial conditions.

## Grades & Key Properties

### WS H91 – High-Temperature Insulator

- Withstands continuous service up to 700°C
- Excellent for thermal insulation & structural applications

### WS L23 – Electrical Insulator

- Service temperature: 230–350°C
- Designed for electrical insulation under heat load

## Typical Properties

Property	WS H91	WS L23
Thickness	-	mm
Density (Normal)	gms/cc	1.95
Tensile Strength (min.)	kgf/cm <sup>2</sup>	180
Shear Strength (min.)	kgf/cm <sup>2</sup>	350
Flexurel Strength (min.)	kgf/cm <sup>2</sup>	350
Ultimate Crusing Strength (min.)	kgf/cm <sup>2</sup>	1250
Compression Yield (min.)	%	3.5
Water Absorption (min.)	%	13
Dielectric Strength in Air @ 90C (min)	kV/mm	.8
Surface Breakdown in Air@ 90C (min)	kV	>10
Carbon Arc Test	Secs	80
Spirit Burner Test	Doesn't Ignite	Doesn't Ignite
Thermal conductivity	kcal/mh° C	.6
Continuous Temp. Usage	C°	350

HD Grades meet the requirements of BS 3497 : 1979 & IS 4248 : 1967 (Class 1)  
1200 X 1050 mm (trimmed). Special sizes on request

## Machining & Handling

- Easily machinable with standard cutting, drilling, and milling tools
- Thickness range: 3 mm – 75 mm (up to 200 mm in special orders)
- Custom machining available for blocks, spacers, insulators, pushers

## Applications

### Foundry & Structural Uses

- Support blocks for furnace elements
- Drying plates, ladle covers, flask liners
- Forging, rolling mill, exhaust system insulation

### Thermal Insulation

- Furnace blocks, insulation covers, billet heater boxes
- Oven & furnace linings, heat barriers

### Electrical Insulation

- Spacers between induction coils
- Covers & structural insulation in assemblies

## Available in

### Sheets (Laminates)

- 5 mm – 75 mm thick (up to 200 mm custom)
- Standard size ~1050 × 1200 mm

### Custom Machined Components

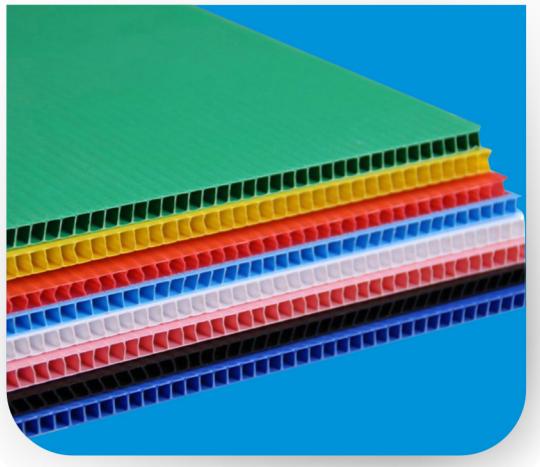
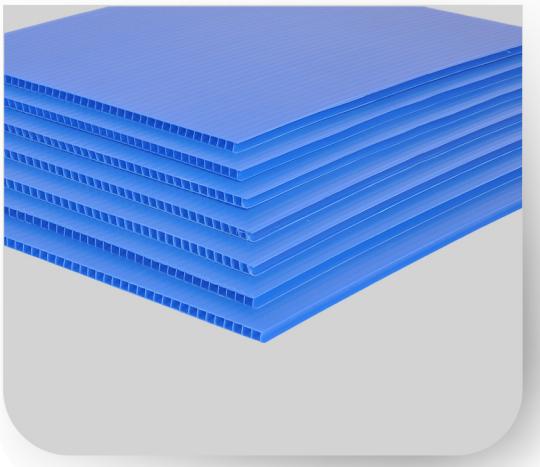
- Blocks, spacers, pushers, insulators

### Rods & Spacers

- Machined from sheets as per requirement

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# PP CORRUGATED SHEETS (POLYPROPYLENE CORRUGATED SHEETS)



## Product Description

**PP Corrugated Sheets** are lightweight, twin-wall plastic sheets made from polypropylene (PP) resin.

- Structure: fluted (corrugated) middle layer between two flat PP sheets (like cardboard, but plastic).
- Known as: PP Flute Boards, Coroplast / Corflute Sheets, PP Hollow Sheets, Corrugated Plastic Sheets.
- Combines strength, impact resistance, low weight, and durability.

## Key Properties

### Material

- 100% polypropylene copolymer

### Density

- 0.90 – 0.93 g/cm<sup>3</sup> (very lightweight)

### Thickness Range

- 2 – 12 mm (common: 3 mm, 5 mm)

### Colours

- Blue, Grey, Green, White, Yellow, Black  
(custom colors on request)

## Mechanical & Physical Properties

- Lightweight yet strong  
(high strength-to-weight ratio)
- Impact & tear resistant
- Waterproof, chemical resistant, corrosion-proof
- Non-toxic & food-safe (FDA grade available)
- Easy to cut, fold, crease & fabricate
- Available in multiple colors
- UV stabilized grades - outdoor use
- ESD / Anti-static grades - electronics packaging

## Advantages of PP Corrugated Sheets

- 100% Recyclable & eco-friendly
- Cost-effective vs. wood, metal & paperboard
- Waterproof & moisture-proof
- Printable (screen, UV, digital printing)
- Lightweight & easy to handle
- Long service life vs. cardboard

## Applications

### Packaging & Boxes

- Reusable corrugated plastic boxes, bins & crates
- Partition sheets & layer pads
- Export packaging (moisture-proof alternative to cardboard)

### Agriculture & Food

- Boxes for fruits, vegetables, fish, poultry
- Greenhouse roofing, partitions

### Construction

- Floor protection sheets
- Temporary wall partitions

### Special Grades

- ESD / Conductive PP Sheets - electronics packaging
- UV Resistant Sheets - outdoor signage & roofing
- Food-Grade Sheets - hygienic, washable packaging

## Technical Comparison with Other Materials

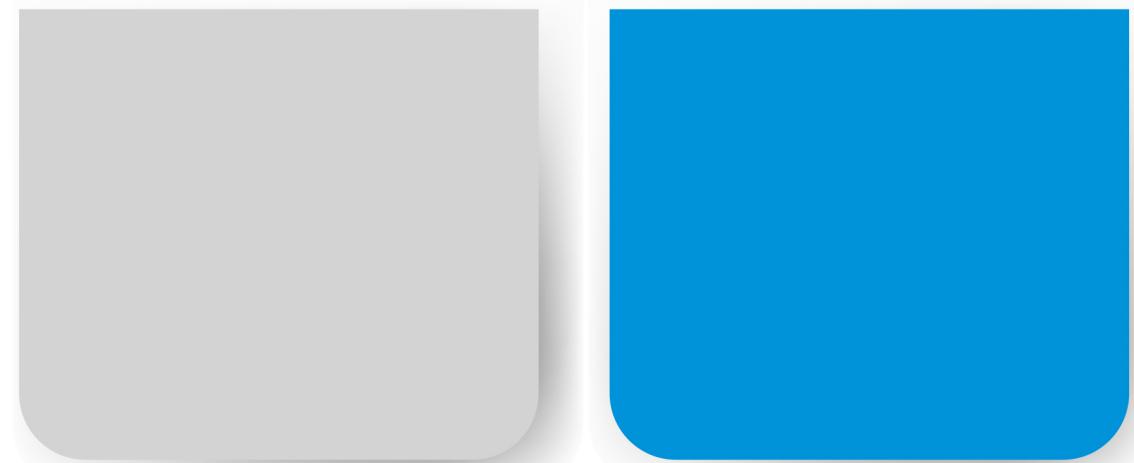
Property	PP Corrugated Sheets	Paper Corrugated Board	Acrylic Sheets	Metal Sheets
Weight	Very Light	Light	Heavy	Very Heavy
Water Resistance	Excellent	Poor	Excellent	Excellent
Recyclability	100%	100%	Partial	Yes
Reusability	High	Low (single-use)	Medium	High
Cost	Low-Medium	Low	High	Very High

## Summary

PP Corrugated Sheets are versatile, lightweight, durable plastic boards ideal for packaging, signage, construction protection, and agriculture.

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# PVDF – POLYVINYLIDENE FLUORIDE



## Product Description

**PVDF (Polyvinylidene Fluoride)** is a high-performance fluoropolymer thermoplastic valued for:

- Exceptional chemical resistance (next to PTFE/FEP)
- High purity - suitable for semiconductor, pharma & food use
- UV & weather stability - ideal for outdoor applications
- Mechanical strength - stronger & easier to process than PTFE

It is widely used in chemical, electrical, semiconductor, architectural, and pharmaceutical industries.

## Key Properties

### Mechanical & Physical

- Density: ~1.78 g/cm<sup>3</sup>
- Continuous Service Temp: -40°C to +150°C (short-term up to 170°C)
- High tensile strength & toughness
- Good abrasion & wear resistance
- Low coefficient of friction (higher than PTFE)

### Chemical Resistance

- Resistant to most acids, bases, halogens, solvents
- Excellent resistance to chlorine, bromine, oxidizers
- High resistance to radiation & aging

### Available Forms

- Sheets & Plates
- Rods & Bars
- Tubes & Pipes (chemical transport)
- Films & Coatings (architectural, electrical)
- Membranes (filtration, water treatment)
- Injection molded / extruded components

## Advantages of PVDF

- Excellent chemical & corrosion resistance
- High purity – food, pharma & semiconductor grade
- Lightweight & easy to machine
- Superior UV & outdoor durability
- FDA-compliant grades available
- Fire retardant & self-extinguishing

## Applications

### Industrial & Chemical

- Pumps, valves, seals, gaskets
- Pipes & fittings for corrosive chemicals
- Linings for tanks & vessels

### Water Treatment & Environmental

- Filtration membranes (UF, MF, NF)
- Components in wastewater plants

### Food & Pharma

- Food-grade piping & tanks
- Biotech & pharmaceutical equipment
- Medical tubing & device components

### Electrical & Electronics

- Wire & cable insulation
- Battery binders in Li-ion cells
- ESD-safe parts for semiconductor

### Construction & Architecture

- PVDF coatings on aluminum & steel panels
- Roofing, cladding, long-life outdoor finishes

## Comparison with Other Fluoropolymers

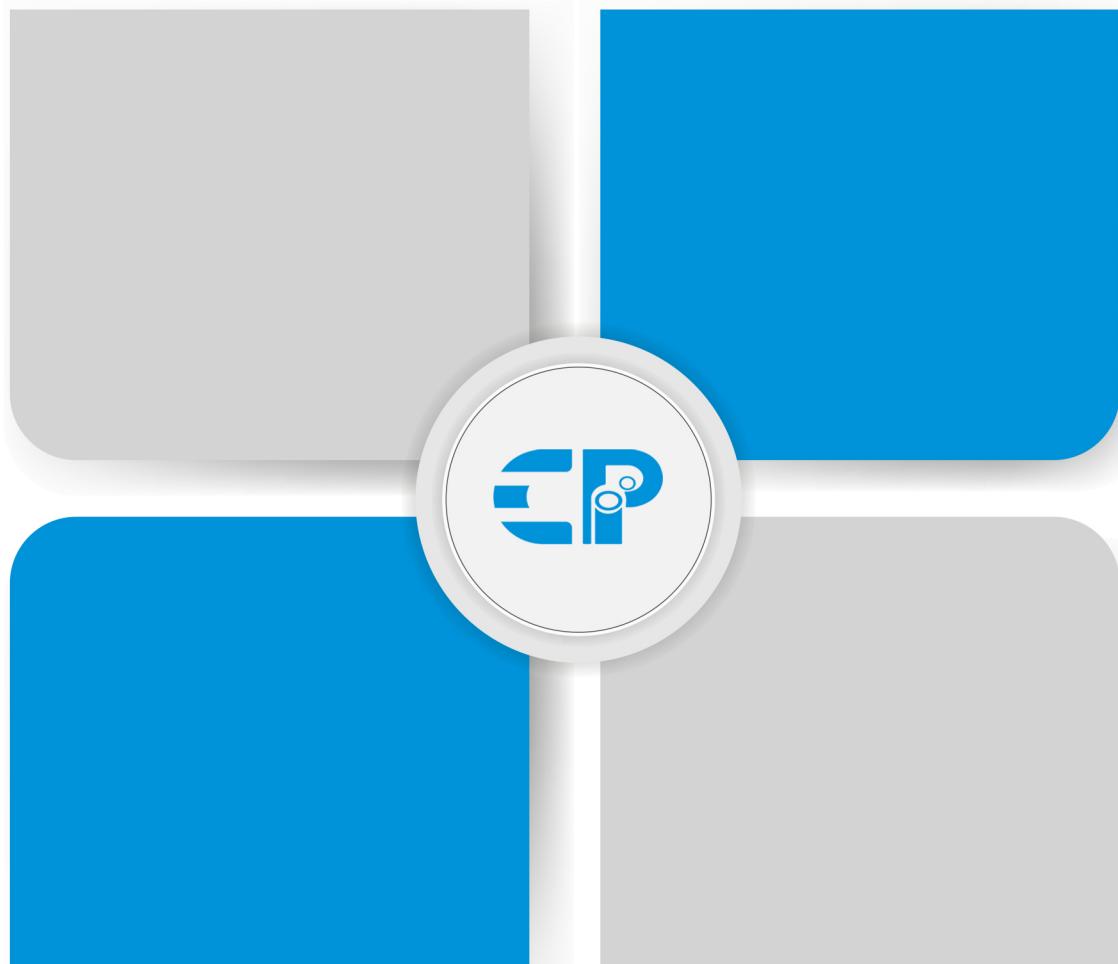
Property	PTFE	PVDF	FEP	PFA
Max Service Temp (°C)	260	150	205	260
Mechanical Strength	Low	High	Medium	Medium
Processability	Difficult (sintered)	Easy (molded/extr.)	Easy	Easy
Purity	High	High	(extruded)	(extruded)
UV Resistance	Excellent	Excellent	Very High	Very High
Cost	High	Medium	Excellent	Excellent

## Summary

PVDF (Polyvinylidene Fluoride) is a versatile semi-crystalline fluoropolymer offering outstanding chemical resistance, superior UV & weathering performance, strong mechanical & electrical properties, high purity for sensitive industries, ideal for chemical processing, water treatment, electronics, food, pharma, and architectural coatings.

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# PTFE ROD



## Features

- Low temperature and high temperature resistance (-180°C~+260°C)
- Corrosion resistance, weather resistance
- High lubricity, no adhesion
- Non-toxic
- Non-flammable
- Acid and alkali resistance (expect molten alkali metals)
- Antioxidant

## Application

- Battery Electrode, Electric Products
- Lubricate Bearings, Piston rings, oil seals and other machinery,
- Filling different material to enhance performance of the desired area according to requirements of customers.

## Categories

### Moulded Rod

Produced by compression molding into Pure rod and filled rod. (color, copper powder, glass fiber, graphite, carbon fiber, carbon powder, polyphenylene.etc)

### Extruded Rod

Produced by plunger extrusion processing of suspension teflon resin into pure rods, graphite rods and glass fiber rods.

### Pasted Rod

Produced by paste push processing of dispersion polymerization teflon resin.

## Main Technical Indicator

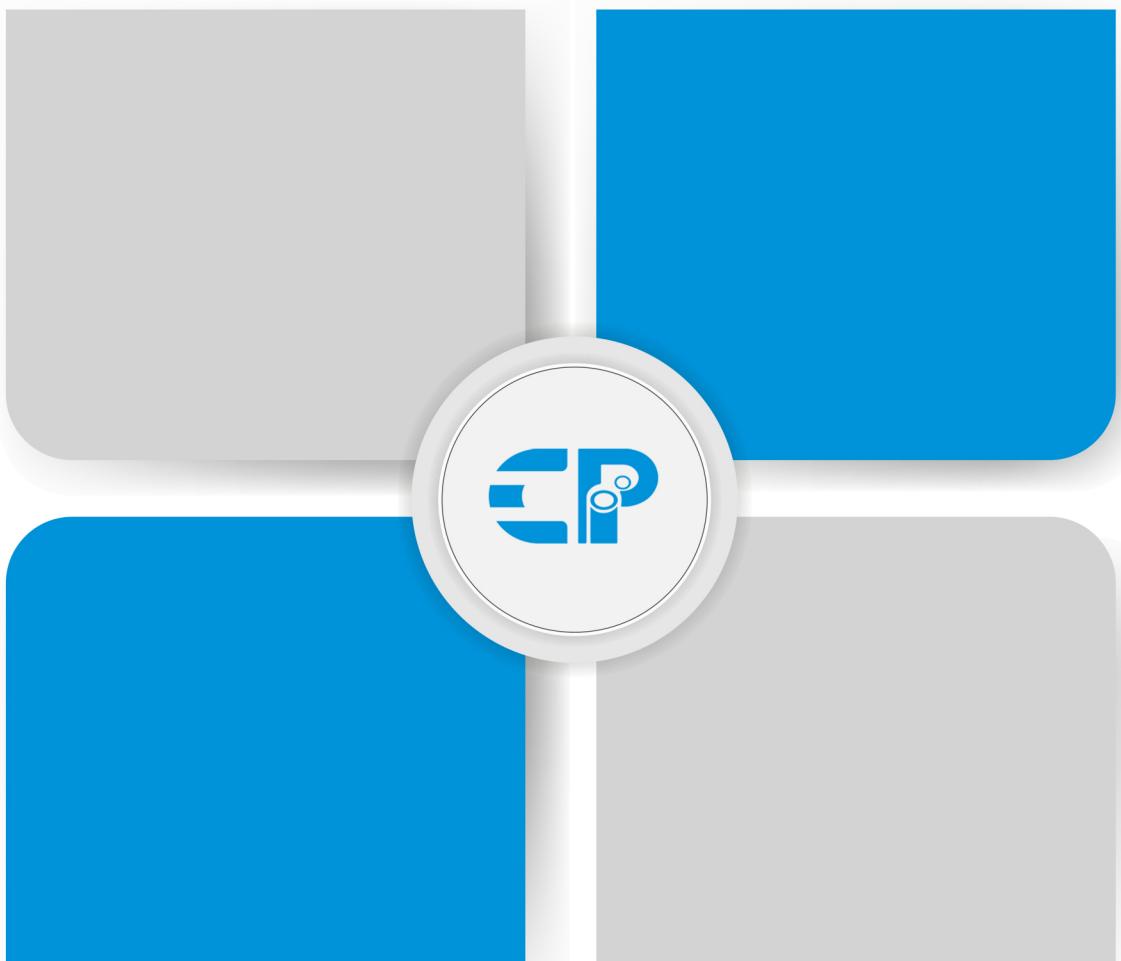
Property	Unit	Pure PTFE Result
Apparent density	g / cm <sup>3</sup>	2.10~2.30
Tensile Strength (min)	Mpa	14
Ultimate Elongation (min)	%	140

## Specifications

Categories	Size		
	Length (mm)	Width (mm)	Thickness (mm)
Moulded Rod	300	300	2~100
Extruded Rod	400	400	2~100
Pasted Rod	450	450	2~100

Note: The technical data and values provided in this catalogue are for reference purposes only. Actual performance and specifications may vary depending on processing conditions and application requirements. The company reserves the right to modify data without prior notice.

# PTFE BRAIDED PACKING



## Features

- Resistance against weather
- High Temperature Resistance
- Longer Shelf Life
- Certain Plasticity
- Chemical Stability
- Impermeability
- Good self-lubricating

## Application

- Centrifugal Pumps
- Compressors
- Vacuum Pumps
- Mixers and ship propeller shaft seals
- Piston pumps
- Reciprocating Compressors
- Reciprocating Chiller seal
- Variety of rotating valve stem seals

## Categories

Teflon (PTFE) braided packing, also called seal packing is braided by soft strands and filled carbon powder, with strips of square, rectangular and circular cross-sectional to achieve sealing

### White PTFE Packing

Into oil and non-oil PTFE packing

### Black PTFE Packing

Into oil and non-oil PTFE packing

### Other PTFE Braided packing

Aramid corners black PTFE packing, separate wire PTFE packing, etc.

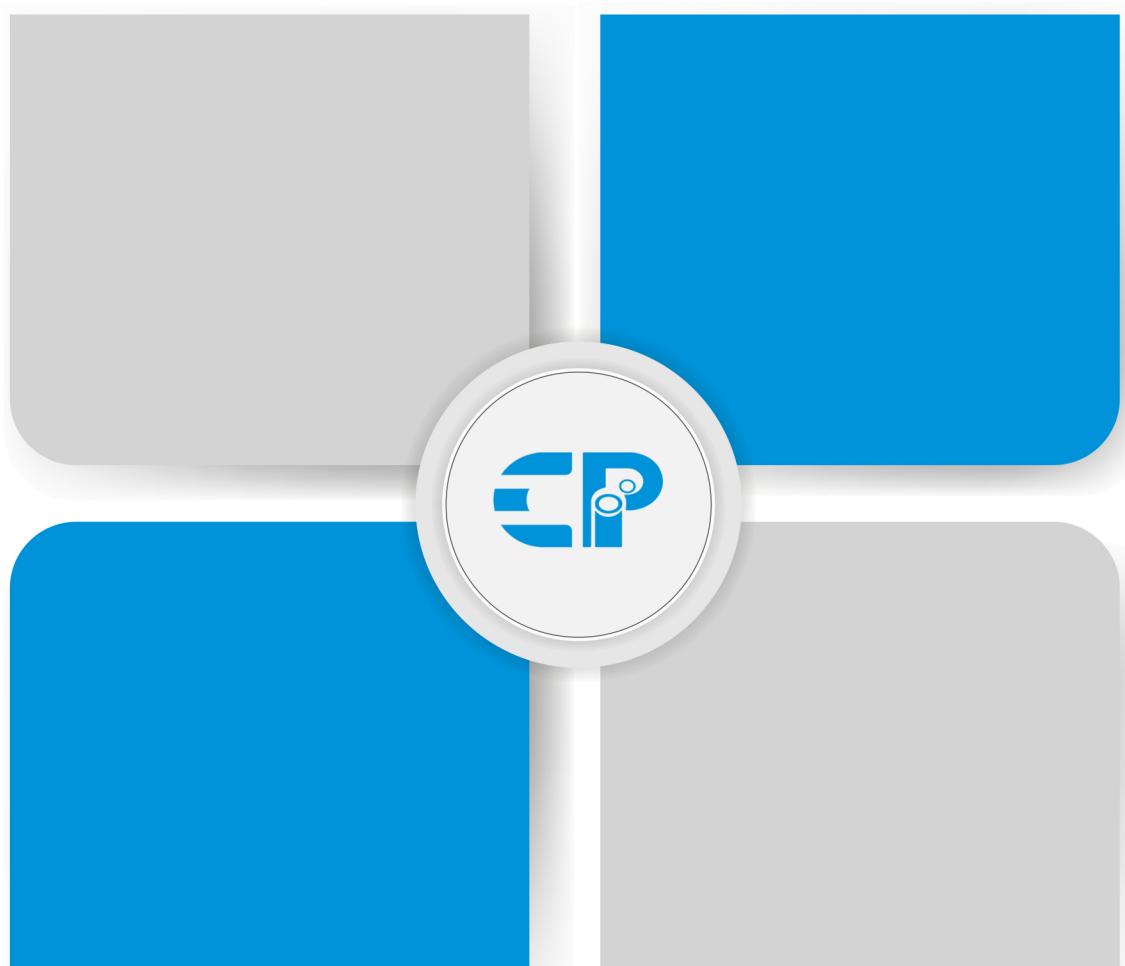
## Main Technical Indicator

Property	Unit	Pure PTFE Result
Tensile Strength (min)	Mpa	7
Ultimate Elongation (min)	%	120

## Specifications

Products	Thickness	Size	Colour
White PTFE Packing	3 mm - 25 mm	1 Kg to 5 Kg	White
Products	Thickness	Size	Colour
Black PTFE Packing	3 mm - 25 mm	1 Kg to 5 Kg	Black

# PTFE GASKET



## Application

- It has effect of sealing, conditioning oil, thermal (heat), orientation (support), which is widely used in a verity of power machinery
- Power Machinery
- Electrical Appliances
- Food, Beverage
- Pharma Cemicals
- Laboratories
- Petrochemicals
- chemical Processing
- Electrical Motor

## Features

- Excellent flexibility, resilience crunch, creep resistance
- High temperature resistance
- Excellent corrosion resistance, aging resistance
- Self-lubricating

## Categories

Produced by molding and mechanical processing of Suspension PTFE resin.

### Pure Gasket

100% pure PTFE to make gasket

### Filled Gasket

Fill different materials according to customers' requirement such as carbon powder, polystyrene, glass fiber, graphite copper powder, etc.

## Main Technical Indicator

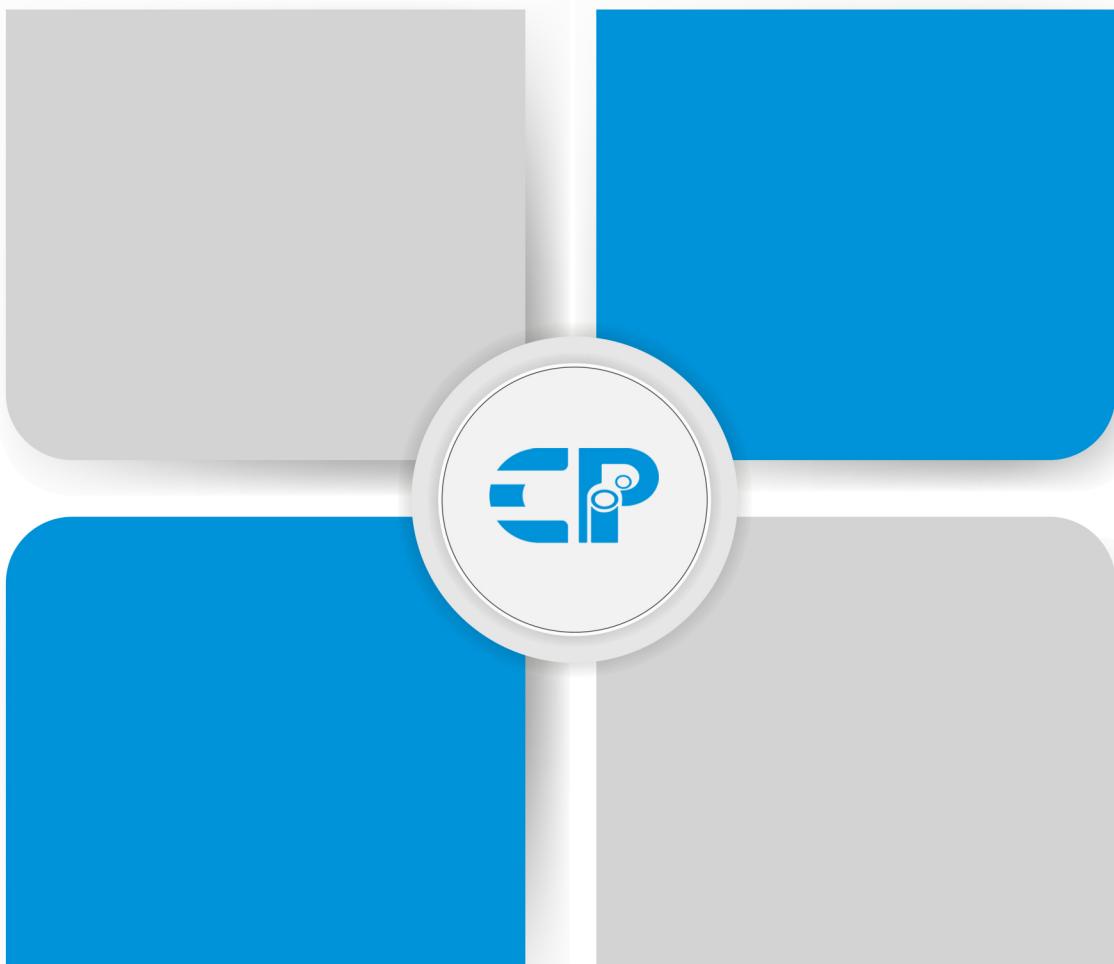
Property	Unit	Pure PTFE Result
Apparent density	g/ cm <sup>3</sup>	2.10~2.30
Tensile Strength (min)	Mpa	15
Ultimate Elongation (min)	%	150

## Specifications

Wide range of categories, could process according to customers' requirements.

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# PTFE COATED FIBRE GLASS CLOTH & TAPES



## Application

- Used as liners to resist high temperature, such as microwave liner, oven liner, or other liners;
- Used for welding of plastics and used as welding cloth for solder.
- It is used as a conveyer belt due to its resistance to viscosity.
- Used for high insulation of electric and heat resistant envelope.
- Used as covering or wrapping material in petroleum and chemical industries.
- Used as insulating material in electrical industries.
- Used as desulfurizing material in power plant etc.

## Features

- Resistance to temperature from 70°C~+ 280°C.
- Resistant to weather and aging.
- Low friction and Non stick property,
- Chemical corrosion resistance.
- Excellent insulation and dielectric property
- Resistant to Ultraviolet, microwave and radio frequencies
- Chemically inert and hence suitable for the food industry
- Light weight and energy efficient

## Main Technical Indicator

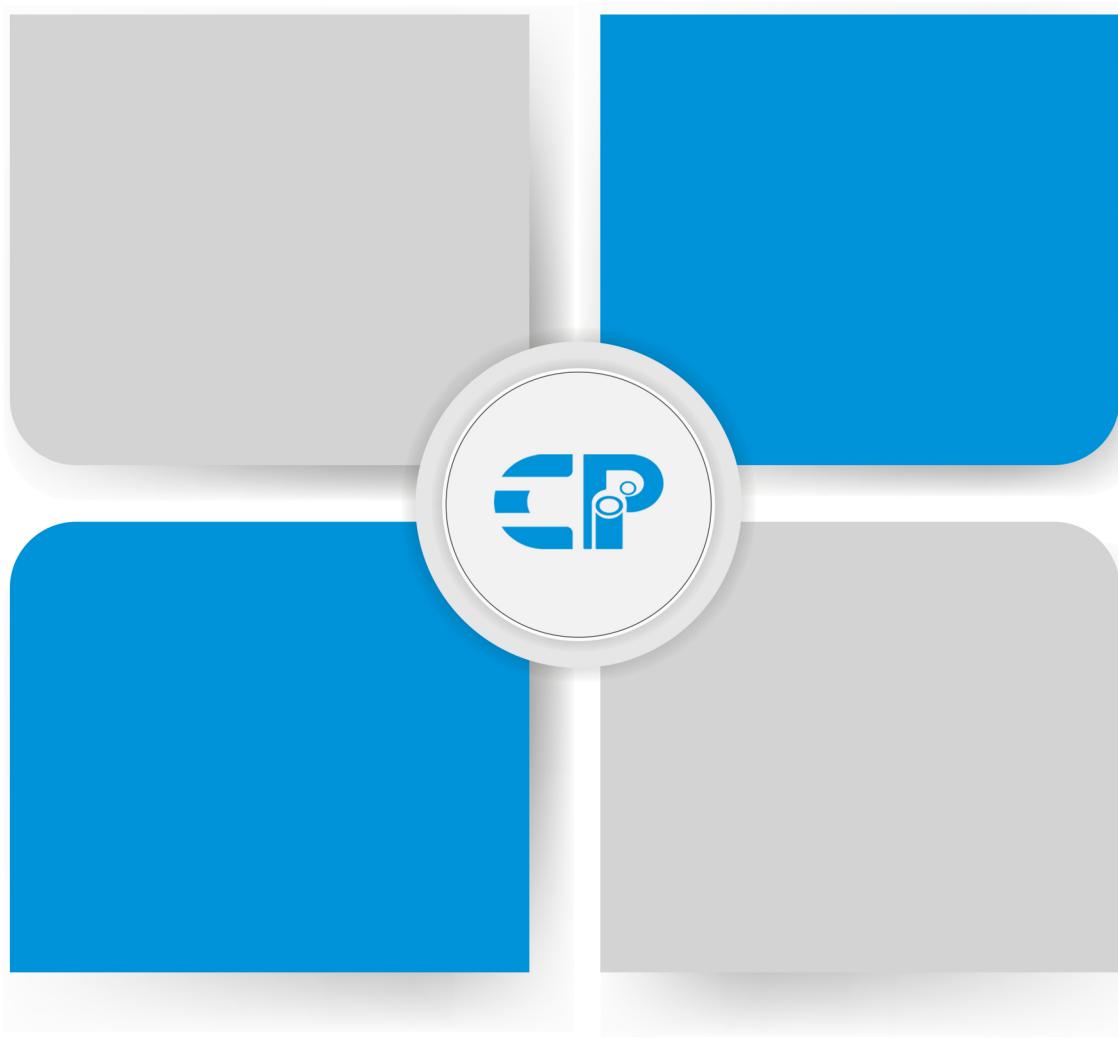
Property	Unit	Pure PTFE Result
Apparent density	g / cm <sup>3</sup>	1.10~1.14
Tensile Strength (min)	Mpa	>170
Adhesive Strength	n/mm	>28

## Specifications

Categories	Size		
	Length (mm)	Width (mm)	Thickness (mm)
PTFE Cloth	10 mtr to 1000 mtr	6 mm to 12 mm	0.08 to 0.76 mm
PTFE Tape	10 mtr to 1000 mtr	6 mm to 12 mm	0.13 to 0.25 mm

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# PTFE BALL, WELDING & SHAPED PARTS



## Features

- Low coefficient of friction
- Good Self-lubrication
- Excellent sealing performance
- Dimensional stability, no distortion
- Erosion Resistant
- Chemical Stability

## PTFE Components

- |                    |                   |
|--------------------|-------------------|
| • PTFE Nozzles     | • PTFE Bellons    |
| • PTFE Shopcock    | • PTFE Rings      |
| • PTFE Keys        | • PTFE V Ring Set |
| • PTFE Valve Seats |                   |
| • PTFE Ball        |                   |

## Application

- Seals of corrosive media with temperature from -180°C~+260°C, corrosion road parts, anti corrosion chemical containers
- Antifriction mechanical equipment, no call lubrications materials
- Insulating parts under various frequencies.

## Categories

Produced by molding PTFE resin at room temperature, then sintering at high temperature after secondary processing.

### PTFE Ball

PTFE ball with different diameterscarbon powder, polyphenylene.etc)

### PTFE Welding products

The main production: sinks pressure vessels for the chemical industry

### Other shaped parts

Produced according to customer's requirement

## Main Technical Indicator

Property	Unit	Pure PTFE Result
Apparent density	g / cm <sup>3</sup>	2.10~2.30
Tensile Strength (min)	Mpa	15
Ultimate Elongation (min)	%	150

## Specifications

- PTFE ball specifications: Φ2~Φ300mm
- Welding products and other shaped parts according to customers' drawings

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# PTFE SHEET



## Features

- Low temperature and high temperature resistance (-180°C~+260°C)
- Corrosion resistance, weather resistance
- High lubricity, no adhesion
- Non-toxic
- Non-flammable
- Acid and alkali resistance (except molten alkali metals)
- Antioxidant

## Categories

### Molded Sheet

Produced by compression molding processing, moulding, sintering, cooling of suspension PTFE resin into pure sheets and filled sheets (color, copper powder, glass fiber, graphite, carbon fiber, black, carbon powder, polyphenylene, anti-static plates. etc)

### Skived Rolled Sheet/Skived Tape

Produced by Skiving PTFE Granular Resin

### Skived Sheet

Produced by cutting and flattening skived rolled sheet.

### Sodium Etched PTFE Sheet

Produced by sodium treatment of sheet surface according to customers'size requirement. dividing into single-sided and double-sided sodium treatment.

## Application

- Welded chemical containers, tanks
- Machinery, construction, transportation bridges slider, rail release material
- The production of sealing material
- Filling different material to enhance performance of the desired area according to customer requirements.

## Main Technical Indicator

Property	Unit	Pure PTFE Result
Tensile	Strength	Mpa ≥ 15.0
Ultimate elongation	%	150~400
Apparent density	g / cm <sup>3</sup>	2.1~2.3
Dielectric strength	KV/mm	10
Resistance of surface (Working voltage 500V)	Ω	3.7 × 10 <sup>16</sup>

## Specifications

Categories	Size		
	Length (mm)	Width (mm)	Thickness (mm)
Moulded Rod	300	300	2~100
	400	400	2~100
	450	450	2~100
	500	500	2~100
	600	600	2~100
	800	800	2~100
	1000	1000	2~100
	1200	1200	2~100
	1500	1500	2~50
	1800	1200	2~50
	1800	1800	2~50
	2000	1000	2~50
	2000	2000	2~50
		10~2700	0.03~10
Skived Rolled Sheet / Skived Tape	10~2700	10~2700	0.03~10
Skived Sheet		10~2700	0.03~10
Sodium Etched PTFE Sheet			0.02~10

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# POLYPROPYLENE SHEETS & RODS



## Product Description

Polypropylene (PP) is light, strong and has resistance to chemicals and has a low friction surface, all of which make it ideal as a replacement for wood or metal which are the materials traditionally used. PP is a high corrosion resistant material, which exhibits excellent tensile strength and stiffness at elevated temperatures.

## Typical Application

- Acid tank & vessel linings
- Component carrier for storage
- Racks
- Etching machines & rinse tubs
- Fans
- Flange
- Fume hoods & ducts
- Metal plating Barrels
- Orthopedic equipments
- Plating modules
- Processing Equipments
- Scrub stations & Scrubbers
- Storage tanks
- Tank covers
- Wall & ceiling
- Claddings

## Features

- Excellent electrical insulation
- Chemical Resistance
- Moisture barrier
- High elongation

## Sizes Available

- Sheet Thickness available from: 1mm to 150mm
- Sizes available: 1mt x 2mt, 1.22mt x 2.44mt, 1.2mt x 2mt, 1.5mt x 3mt
- Squares available from: 16mm sq to 150mm sq
- Profiles available as per customer requirement

## Products

**Sheets**    **Rods**    **Thick Boards**    **Ortho Sheets**    **Square & Profiles**

## Mechanical Properties

Performance & Test Conditions	Test Method	Unit	Typical Values
Notched impact strength of cantilever beam, 23°C	ASTM D256	J/m <sup>2</sup>	35
Yield tensile strength, 23°C, 50mm/min	ASTM D638	Mpa	29
Elongation at break, 23°C, 50mm/min	ASTM D638	%	300
The bending strength. 23C, 2mm/min	ASTM 790	Mpa	35
Bending modulus, 23°C, 2mm/min	ASTM 790	Mpa	1030
Shore hardness D	ASTM D2240	-	80
The Density	ISO 1183	g/cm <sup>3</sup>	0.910

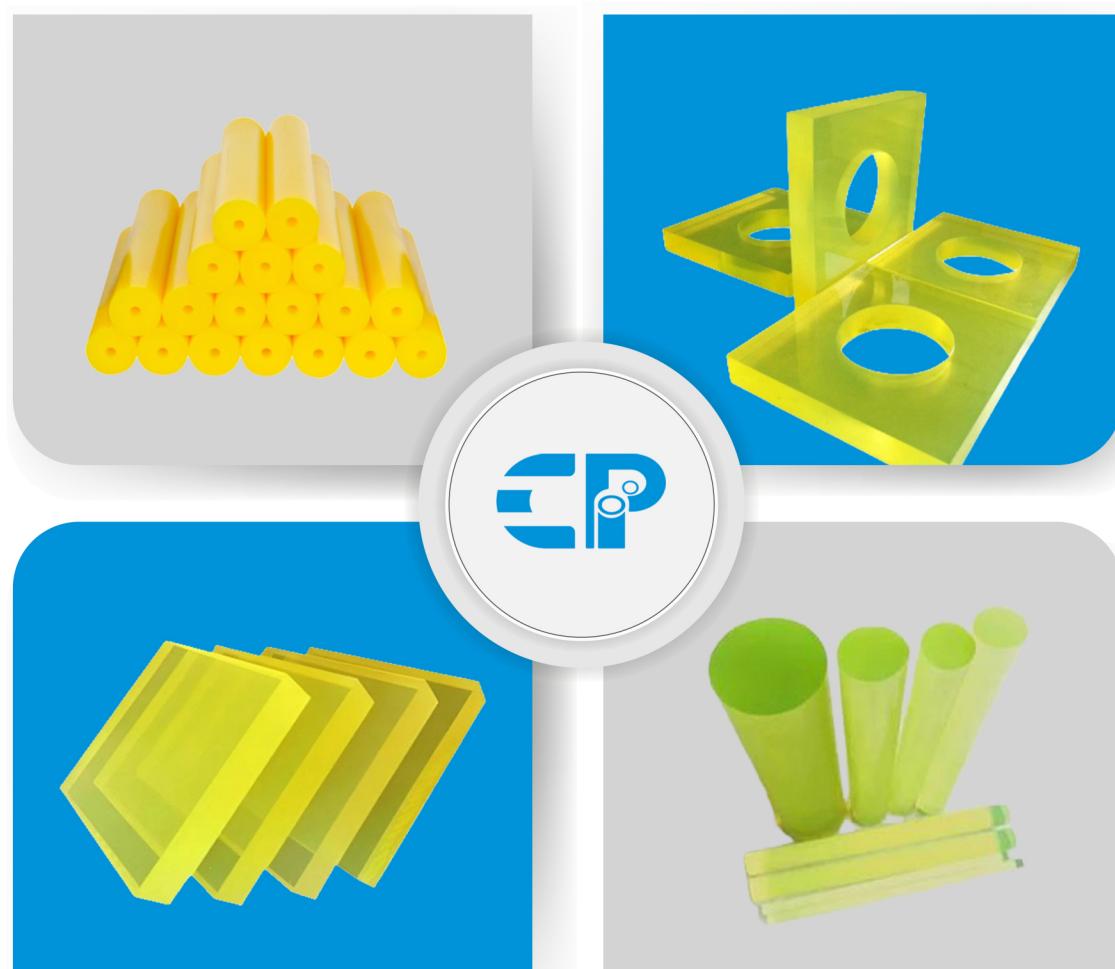
## Thermal Performance

Performance & Test Conditions	Test Method	Unit	Typical Values
Thermal deformation temperature(HDT) (0.45Mpa)	ISO 75	°C	83
Melting point	-	°C	170
Long term operating temperature	-	°C	95
Short-term operating temperature	-	°C	120
Thermal conductivity	DIN 52612-1	W/(K-M)	-
Linear expansion coefficient	ASTM D696	10-5-1/K	15

## Electrical Performance

Performance & Test Conditions	Test Method	Unit	Typical Values
Dielectric strength	ASTM D150	KV-mm	40
Dielectric loss coefficient	ASTM D150	-	-
The volume resistance	ASTM D257	Ω.cm	10 <sup>14</sup>
The surface resistance	ASTM D257	Ω	10 <sup>16</sup>
Dielectric constant	ASTM D149	-	2.3

# POLYURETHANE - PU



## Product Description

Cast Polyurethanes are cost-effective elastomers combining the advantages of plastics, metals, and ceramics with rubber's flexibility. They offer high load capacity, impact strength, abrasion resistance, resilience, and oil/grease resistance.

### Features

- Cost effective
- Dependable
- Resilience and flexible as rubber
- High life expectancy

### Specifications

- Rods, Sheets, Bushes & components as per customers drawings and specifications
- Sheet thickness available from: 2mm to 300mm
- Rod dia available from: 16mm dia to 300mm dia in 1 feet and 2 feet length

## Products

<b>Sheets</b>	<b>Rods</b>	<b>Screens</b>	<b>Damper Pads</b>
<b>Chute Liners</b>	<b>Balls</b>	<b>Declogging Rods</b>	<b>Wheels</b>
<b>Rollers</b>	<b>Nozzles</b>	<b>Scrapers</b>	<b>Components</b>

## Mechanical Properties

Performance & Test Conditions	Unit								
Hardness (Shore A)	60A	70A	75A	80A	85A	90 A	95A	95 D	60D
Tensile Strength /Mpa (psi)	10	7	10	19	21	31	32	34	35
100% Modules / Mpa(psi)	-	2.1	4.2	5.4	5.9	8.9	9.2	15.2	15.8
300% Modules / Mpa(psi)	-	3.0	6.3	10.0	10.3	14.6	16.8	24.6	23
Angel Tear Strength (DIE C)(kN/m)( without nick)	38	34	44	53	57	73	78	95	120
Elongation (%)	700	600	550	500	480	460	450	440	420
DIN ABRASION RESISTANCE(mm <sup>3</sup> )	-	163	159	116	157	135	117	143	135
Specific Gravity	1.1	1.08	1.09	1.11	1.13	1.14	1.15	1.16	1.17
Rebound (%)	60	50	48	41	31	30	31	41	43

## Typical Application

- Mining Industry
- Pads
- Abrasion Resistant Linings
- Gear Seals
- Jig & Fixtures
- Mallets
- Punch-stripers
- Screens
- Spacers
- Rollers & Sleeves
- Suspension Bushes
- Scraper Blades
- Wheels
- Wear Plates

# PMMA ACRYLIC ROD



## Product Description

**PMMA Acrylic Rods** are solid cylindrical bars manufactured from PMMA (Polymethyl Methacrylate). They are well known for their crystal-clear transparency, excellent surface finish, weather resistance, and ease of machining. PMMA Acrylic rods are widely used as a lightweight, shatter-resistant alternative to glass and metals in industrial, commercial, decorative, and engineering applications.

## Key Features & Benefits

- Excellent Optical Clarity – Up to 92–93% light transmission
- Lightweight – About 50% lighter than glass
- High Surface Finish – Glossy, polished appearance
- Good Impact Resistance – Stronger than glass
- UV & Weather Resistant – Suitable for indoor & outdoor use
- Easy to Machine & Fabricate – Can be cut, drilled, turned, polished, and bonded
- Electrical Insulating Properties – Good dielectric strength
- Non-Toxic & Odorless – Safe for general use
- PMMA Acrylic rod
- Size 6mm to 200mm dia
- Length 2000mm long standard

## Applications of PMMA Acrylic Rods

- Display & Decorative
- Signage, Display supports & fixtures
- Furniture components
- Interior décor & art installations
- Industrial & Engineering
- Insulating spacers & supports
- Protective guards & covers
- Machined components & knobs
- LED Lighting and elements
- Lamp bodies & diffusers
- Medical & Laboratory
- Visual components
- Protective enclosures

## Tabulation

Properties	Value	Unit	Standard
Density	1.19	g/cm <sup>3</sup>	ASTM D792
Water Absorption	0.25	%	ASTM D570
Tensile Strength	74	N/mm <sup>2</sup>	ASTM D638
Flexural Strength	120	N/mm <sup>2</sup>	ASTM D790
Elongation at Break	3	%	ASTM D638
Impact Strength (Izod, Notched)	2	kJ/m <sup>2</sup>	ASTM D256
Rockwell Hardness	M100	-	ASTM D785
Deflection Temperature (1.8 N/mm <sup>2</sup> )	105	°C	ASTM D648
Softening Point	≥115	°C	ASTM D1525
Light Transmittance	92	%	ASTM D1003
Dielectric Strength	20	kV/mm	ASTM D149
Volume Resistivity	> 10 <sup>15</sup>	Ohm cm	ASTM D257

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# SILICON RUBBER



## Product Description

**Silicone Rubber** is a synthetic elastomer made from a combination of silicon, oxygen, carbon, and hydrogen. Unlike conventional organic rubbers, silicone rubber has a siloxane backbone (Si–O–Si), which gives it exceptional thermal stability, flexibility, and resistance to aging. It remains elastic and functional over a very wide temperature range, making it ideal for industrial, food, pharmaceutical, medical, and electrical applications.

## Key Properties & Advantages

- Temperature Resistance
- Flexibility & Elasticity
- Weather, UV & Ozone Resistance
- Chemical Resistance
- Food, Medical & Pharma Safe
- Electrical Insulation
- Excellent dielectric strength
- Stable electrical properties over wide temperature ranges

## Applications of Silicone Rubber

- High-Temperature Applications
- Food & Pharmaceutical
- Electrical & Electronics
- Industrial Uses
- Medical

## Why Choose Silicone Rubber?

- Best choice for extreme temperature environments
- Excellent for food, pharma, and medical applications
- Long service life with minimal aging
- Superior flexibility compared to conventional rubbers

## Tabulation

Properties	Value	Standard
Density	1.20 g/cm <sup>3</sup>	ASTM D297
Hardness	60 + 5 Shore A	ASTM D2240
Tensile Strength (Min)	60 kg/cm <sup>2</sup>	ASTM D412
Elongation @ Break (Min)	250%	ASTM D412
Compression Set (70°C, 24 hrs)	30%	ASTM D395
Tear Strength	25 kg/cm	ASTM D624
Heat Ageing (72 hrs @ 100°C)	± 5% (TS & Elongation)	ASTM D573
Chemical Resistance	Excellent	ASTM D1149
Temperature Range	-70°C to +250°C	-

## Available in

Colours
Natural White & Red

Thickness
1mm to 12mm

## Size Available

Width 1000 and 1200mm, Std

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# PTFE PRODUCTS



## PTFE Sheet

High-temperature, chemical-resistant, non-stick material used for lining, insulation, sealing, and anti-friction applications.

## PTFE Rod

Low-friction, corrosion-resistant rods used for machining components like bearings, insulators, piston rings, and structural parts.

## PTFE Bushes

Self-lubricating, wear-resistant bushes used in automotive, machinery, pumps, and engineering applications requiring maintenance-free motion.

## PTFE Tubing

Chemically inert, high-temperature tubing used for fluid transfer, medical lines, wire insulation, and laboratory applications.

## Features

- Withstand very high and low temperatures
- Excellent chemical and corrosion resistance
- Very low friction and non-stick behavior
- Good electrical insulation
- Weather, moisture, and UV resistance
- Non-toxic and suitable for sensitive environments

## Applications

- Chemical handling equipment
- Pumps, valves, gaskets, seals
- Electrical and electronic insulation
- Food, pharma, and medical use
- Automotive and engineering components
- High-temperature liners and conveyor systems

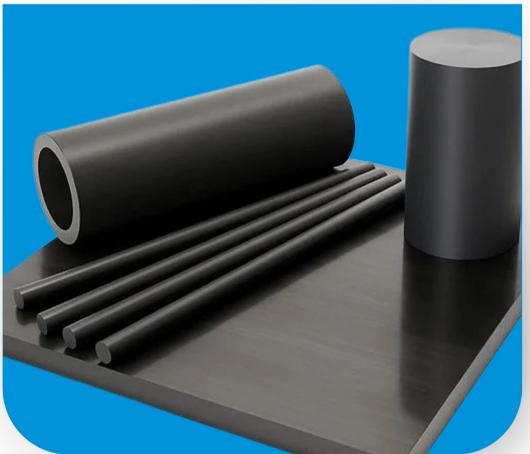
## Tabulation

Product Name	Thickness	Length / Width Size
PTFE Moulded Sheets	12 mm to 100 mm	300 mm to 2000 mm
PTFE Skived Sheets	0.5 mm to 10 mm	300 mm to 2000 mm
PTFE Rods	4 mm to 150 mm	2000 mm Length
PTFE Bushes	6 mm ID up to 300 mm OD	As per the standard

Note: Custom sizes can be manufactured as per customer requirements.

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## ESD PRODUCTS



### Product Description

**Electrostatic Discharge (ESD)** is the sudden flow of static electricity that can damage sensitive electronic components; ESD-safe materials are designed to dissipate static charges safely, preventing equipment failure and production losses.

#### ESD Acrylic Sheet

Transparent ESD-safe sheet for viewing panels and enclosures.

#### ESD Polycarbonate Sheet

Impact-resistant ESD sheet for machine guards and covers.

#### ESD FR4 Sheet

Rigid ESD-safe laminate for fixtures and electronic workstations.

#### ESD Durostone Sheet

High-temperature ESD material for soldering pallets and tooling.

#### ESD Bakelite Sheet

Heat-resistant ESD phenolic sheet for electrical applications.

#### ESD PEEK Sheet & Rod

High-performance ESD plastic for demanding environments.

#### ESD PP Corrugated Sheet

Lightweight ESD sheet for packaging and material handling.

**Customize thickness & size as per customer requirement**

## CNC ROUTER JOB



### Product Description

Precision-engineered CNC machined plastic components manufactured to meet tight tolerances, complex geometries, and demanding industrial applications.

### Key Properties & Advantages

- High dimensional accuracy
- Smooth surface finish
- Excellent electrical insulation
- Lightweight & corrosion resistant
- Suitable for prototypes & bulk production

### Applications

- Electrical & electronic components
- Industrial machinery parts
- Insulation & wear components
- Automation & tooling parts
- Semiconductor & cleanroom applications

**On customer drawings & samples, we deliver the component (Any polymer)**

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