MANDHANA POLYMERS PRIVATE LIMITED

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MANDHANA POLYMERS PRIVATE LIMITED

We Build
to Conquer
Engineering
Excellency.

Welcome to Mandhana Polymer

Providing Innovative Solutions with guaranteed results.

Welcome to MPPL, a pioneer in manufacturing plastic sheets like PP, HDPE, ABS, HIPS, PVC, solid rods, welding rods, and injection moulded products. Besides, we are also a pioneer in manufacturing & fabrication of Storage Tanks, Vessels, Fumes, Exhaust Systems, Hoods, Blowers, Pipe & Fittings, Ducting, Cable trays, and equipment as per process design in all plastics like PP, PPH, PPR, HDPE, PVC, CPVC, ABS, HIPS, PVDF, UHMW & other high end engineering plastics.

We have the agility to provide low-cost ideas and execution, quality, customer service, and exceptionally built environments that can be delivered in line with accelerated business requirements.

We give our attention to the client's needs irrespective of the time it takes. It allows us to add value to a project by engineering a solution that can improve outcomes in terms of cost, completion time, or both.

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know more about us

About Mandhana Poylmers

Who we are ?

Mandhana Polymers Pvt. Ltd. (MPPL) commenced operations in India in 1988. State-of-art modern machinery and a dedicated team of Research & Development experts ensure consistent, reliable, and high-performance products. A group of true professionals carefully monitor every step of the manufacturing process, from the raw material to the dispatch. The infrastructure and the process have always blended to maintain high-quality standards.

Mandhana Poylmers

aims at complete customer satisfaction by:

- Involving all the organization's people, vendors, sales networks, and others in its total quality processes.
- Developing & upgrading technology & service continuously.
- Training & building human resources for achieving all-around excellence.
- Monitoring cost, quality, & delivery criteria at the highest level.
- Adopting quality as a primary business principle in dealing with customers.

PP
Polypropylene

PPH
PPCP
PPGL
PPHGL

Polypropylene (PP) is a semi-rigid, translucent polymer with good toughness and weather resistance properties. It is a largely non-polar, partially crystalline thermoplastic with 60 to 70% crystallinity. PP has a density of 0.90 to 0.92 g/cm^3, amongst the lowest densities for all plastics. PP Sheets are made in 3 primary grades for application-based usage- in PP-Homopolymer (PPH), PP-Copolymer (PP-C), and PP Random Copolymer (PP-R). PP has replaced many traditional construction materials in various applications, including metals, wood, and concrete.

Features and Advantages

- Excellent Chemical Resistance
- High Thermal Resistance
- Excellent Fusion Capabilities
- Homogenous Structure
- Excellent Fatigue Resistance
- High Impact Strength
- High Stress Crack Resistance
- Low Density, Low Weight
- Excellent Dielectric Properties
- Good Elasticity
- Non Toxic
- Food Grade
- Good Thermal Insulation

Special Features

Conductive PP with a resistivity of 10^3 to 10^{10}

Technical Information

	Standard	Units	PP-C	PP-H	PP-R
Specific Gravity (p)	ISO 1183	g/cm^2	0.91	0.9	0.909
Max. Permissible Service Temp.	-	^{0}C	0 to 75	5 to 100	5 to 100
Tensile Strength at Yield (óS)	ISO 527	Mpa	26	31	26.1
Elongation at break (εR)	ISO 527	%	-	≥400	≥400
Impact Strength (an)	ISO 179	kJ/m^2	No Break	No Break	No Break
Modulus of Elasticity (Et)	ISO 527	Mpa	1200	1400	1200
Coef. of Linear Therm. Expansion (α)	DIN 53752	K^{-1} x 10^{-4}	1.5	1.5	1.5
Vicat Softening Temp.	ISO 306	^{0}C	148	150	131.3
Shore Hardness	ISO 868	Shore D	67	70	60

Product Applications

- Chemical Storage
- Filtration Systems
- Pickling Tanks
- Etching Tanks
- Fabrication Works
- Fume Extractors
- FRP Lining
- Office Stationery
- Thermoforming Plastic Component
- Industrial Flooring
- Orthodontics & Prosthetics
- Shipbuilding Machinery
- Corrosive Fume Exhaust Systems
- Engineering Components
- Point of Display
- Semiconductor Equipment
- Electroplating Plants

Available Thickness

PP|PPH|PPC Thickness	Available Size
1-12 mm.	Width of 1.5 mtr.
15-25 mm.	Width of 1.5 mtr.
Above 30 mm.	Width of 1.2 mtr.

PPGL| PPHGL Thickness	Available Size
2-6 mm. in Roll form	Width of 1.5 mtr.
8-12 mm. in Roll form	Width of 1.5 mtr.

* 35 mm. to 200 mm. width max. 1000 mm. compression moulding.

Available Colors

- Standard White
- Milky White
- Black
- Simona Grey
- Grey

* Custom colour available on request.

HDPE
High Density Polyethylene

High-Density Polyethylene (HDPE) has little branching, giving it more vital intermolecular forces and tensile strength than lower-density polyethylene. It is also more rigid and more opaque. High-density polyethylene, unlike polypropylene, cannot withstand normally-required autoclaving conditions. The lack of branching is ensured by an appropriate choice of catalyst and reaction conditions. HDPE contains the chemical elements carbon and hydrogen.

Technical Information

	Standard	Units	HDPE
Specific Gravity (p)	ISO 1183	g/cm^2	0.95
Max. Permissible Service Temp.	-	^0C	-50 to 100
Tensile Strength at Yield (óS)	ISO 527	Mpa	27
Elongation at Break (εR)	ISO 527	%	≥700
Impact Strength (an)	ISO 179	kJ/m^2	No Break
Flexural Strength (Ơ ß 3,5%)	ISO 178	Mpa	22
Modulus of Elasticity (Et)	ISO 527	Mpa	1150
Coef. of Linear Therm. Expansion (α)	DIN 53752	$K^{-1} \times 10^{-4}$	1.5
Vicat Softening Temp.	ISO 306	^0C	80

Features & Advantages

- Low Density
- High Toughness
- Excellent Electric Properties
- Machinable
- Processing & Welding
- Non Toxic
- Flexible
- Low Permeability

Product Applications

- Insulation
- Industrial Floor Lining
- Tanks and Vessel
- Vacuum forming (Pallets & Others)
- Folding Tables & Chairs
- Storage Sheds
- Containment of Certain Chemicals
- Corrosion protection for steel pipelines (Insulation)
- Snowboard Rails & Boxes
- Fences
- Spinning Cans
- Packaging
- Thermoforming Plastic Components

Available Thickness

Thickness	Available Size
1-12 mm.	Width of 1.5 mtr.
15 mm.	Width of 1.22 mtr.
Above 15-25 mm.	Width of 1 mtr.

Available Colors

Standard White Black

* Custom colour available on request.

UHMW-PE
Ultra-High-Molecular-Weight Polyethylene

Ultra-high-molecular-weight polyethylene (UHMW-PE) is a subset of thermoplastic polyethylene. It is also known as high-modulus polyethylene. It has extremely long chains. The long chain transfers load more effectively to the polymer backbone by strengthening intermolecular interactions. This results in a very tough material with the highest impact strength.

Technical Information

	Standard	Units	UHMW-PE
Density	ISO 1183	g/cm^3	0.933-0.945
Elongation at Break (εR)	ISO 527	%	>50
Ultimate Tensile Strength	ISO 527	N/mm^2	>38
Shore Hardness - D Scale	ISO 868	-	65-68

Features & Advantages

- High Abrasion Resistance
- Low Specific Weight
- Low Water Absorption
- Weathering Resistance
- Low Temp. Resistance
- Low Coefficient of Friction
- High Chemical Resistance
- High Impact Strength
- Protection from Stress Cracking
- Food Safe

Product Applications

- Mining Industries
- Shipping Industries
- Industrial Equipments
- Chemical Equipments
- Textile & Bottling Machinery
- Transporting Machinery
- Conveyor Systems
- Food Processing Machinery Components
- Star Wheels, Idler Sprockets
- Architecture & Agriculture Machinery
- Chute Liners & Truck / Hopper Liners
- Paper Making Machinery
- Abrasion Resistant Lining
- Dyeing Decoration

* Imported Sheets of standard size and colors only available.

HDPE T RIB

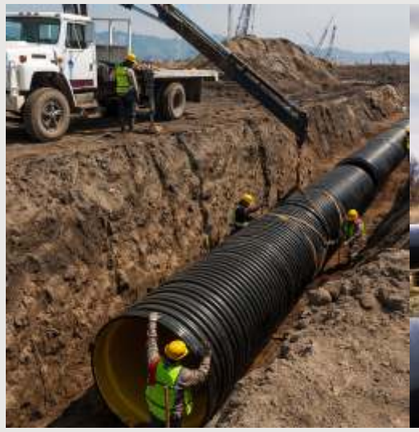
High Density
Polyethylene
T Ribbed

'T' Ribbed HDPE Lining Sheets mainly protect Concrete from corrosion. HDPE 'T' Rib Lining is a flexible HDPE Sheet liner with T Shape locking extensions used to line RCC Pipes, Concrete Tunnels, Wet Walls, Manholes, Chambers, Wastewater Treatment Plants, and Canals.

PE Concrete Liner forms the barrier to aggressive corrosive media and protects the concrete structure. The best of both worlds is achieved when the advantages of plastic in combatting corrosion are coupled with the superior mechanical & structural strength of Concrete.

Product Applications

- Manufacture of Sewage Concrete pipes
- Underground Constructions
- Impervious Chemical Floors
- HDPE Tanking for Jetty Caissons
- Lining-in / Vessels For: Tunnels, Culverts, Trenches & Manholes
- Sewage, Waste Water & Effluent Service
- Zinc, Copper & Electroplating Industries
- Chemical, Aggressive Salt Storage
- Hydrofluoric Acid Tanks

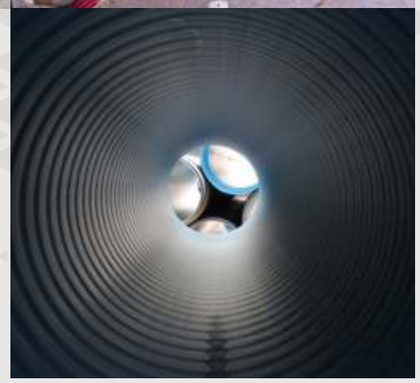


Special Features

UV Resistant, Anti-Static & Good Conductor of Electrical Properties.

Technical Information

	Standard	Units	T-RIB
Specific Gravity (p)	ASTM D792	g/cm^3	0.96
Tensile Strength at Yield (óS)	ASTM D638	N/mm^2	25
Hardness	ASTM D2240	-	55
Abrasion Resistance	ASTM D1044	mg/cycle	18
Dielectric Strength	ASTM D149	V/mil	400-850



Available Thickness

Thickness	Available Size
1.65-5 mm.	Width of 1.5-2.0 mtr.

Features and Advantages

- High Chemical Resistance Material
- Light Weight & Flexible [Easily Adopted to Structures]
- Proven Track Record in Aggressive Applications
- High Abrasion Resistance Even Compared to Steel
- Easily Weldable [Easy Installation, Easy Repair]
- High Thermal Resistance : Can be used between -30^{0}C to 80^{0}C

Available Colors

Black

* Custom colour available on request.

ABS
Acrylonitrile Butadiene Styrene Sheet

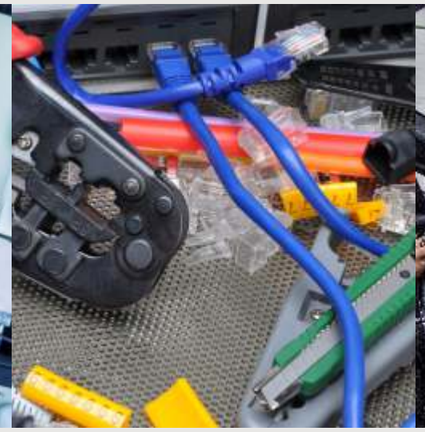
ABS-PMMA
ABS-PC
ABS-SOFT TOUCH

Acrylonitrile Butadiene Styrene (ABS) is a common thermoplastic used to make light and rigid components. ABS is made by polymerizing styrene and acrylonitrile in the presence of polybutadiene. The styrene gives the plastic a shiny, impervious surface. Butadiene is a rubbery substance that provides resilience even at low temperatures.

ABS can be used between -25C and 60C. The properties are created by rubber toughening, where fine particles of elastomer are distributed throughout the rigid matrix.

Product Applications

- Automobile Interior & Exterior
- Partition & Doors
- Plastic Component Home Appliances
- Non Conventional Energy Industry
- Space Launch Vehicle Components
- Defence Equipments
- Telecommunication Industries
- Laboratory
- Sports Industries
- Hard Luggage

Special Features

UV Stabilised, Fire Retardent, High Impact, High Gloss & Low Gloss.

Technical Information

	Standard	Units	ABS
Specific Gravity (p)	ASTM D792	g/cm^3	0.96
Tensile Strength at Yield (óS)	ASTM D638	N/mm^2	25
Flexural Strength	ASTM D2240	-	55
Flexural Modulus	ASTM D1044	mg/cycle	18
Rockwell Hardness	ASTM D149	V/mil	400-850
Izod Impact Strength (Notched)	ASTM D149	V/mil	400-850



Available Thickness

Sheets	Thickness	Available Size
ABS	1-10 mm.	Width of 1.5 mtr.
ABS-PMMA	1.5-10 mm.	Width of 1.22 mtr.
ABS-PC	1.5-10 mm.	Width of 1.22 mtr.
ABS-Soft Touch	1.5-10 mm.	Width of 1 mtr.

Features and Advantages

- Impact Resistance at 0 temp
- Light Weight, High Strength to Weight Ratio
- Excellent for Deep Drawing & Formability
- High Abrasion & Corrosion Resistance
- Easy Weldable & Machineable Characterstic
- High Thermal Resistance

Available Colors

Standard White
Black
Grey

* Custom colour available on request.

HIPS
High Impact Polystyrene Sheet

PS
HIPS-GPPS
ESD HIPS

High Impact Polystyrene (HIPS) is an aromatic polymer made from aromatic monomer styrene. Polystyrene is a thermoplastic substance, usually existing in a solid state at room temperature but melting if heated (for molding or extrusion) and becoming solid again when cooled off. Polystyrene is one of the most widely used kinds of plastic.

HIPS is made from amorphous polymer, gives improved impact resistance, and imparts a high gloss finish. Because of this, it is primarily used in all durable household products, glow sign industries, & advertising materials.

Product Applications

- Advertisement Industries
- House Hold Industries
- Toy Industries
- Industrial Refrigeration
- Component of Air Condition

Special Features

UV Stabilised, Fire Retardent, High Impact EDS with a resistance of 10^3 to 10^{10}, High Gloss Low Gloss

Technical Information

	Standard	Units	HIPPS
Specific Gravity (p)	ASTM D792	-	1.03
Tensile Strength at Yield (óS)	ASTM D638	Kgf/cm^2	265
Elongation	ASTM D638	%	50
Flexural Strength	ASTM D790	Kgf/cm^2	425
Flexural Modulus	ASTM D790	Kgf/cm^2	20380
Vicat Softening Point	ASTM D1525	(degree)C	102
Izod Impact Strength (Notched)	ASTM D256	J/m	100

Available Thickness

Sheets	Thickness	Available Size
HIPS	1-10 mm.	Width of 1.5 mtr.
HIPS-GPPS	1.5-10 mm.	Width of 1.22 mtr.
ESD HIPS	1.5-10 mm.	Width of 1.22 mtr.

Available Colors

Standard White
Black
Grey

* Custom colour available on request.

Features and Advantages

- Impact Resistance
- Light Weight
- Excellent Electric Properties
- Machinable
- High Abrasion Resistance
- Food Graded
- Easy Formable Characteristic

GEO MEMBRANE

Geomembranes are used as barriers to control fluid flow in structures that can be either artificial or natural. These can also be used to contain solid waste and mining.

Geomembranes can be made from raw materials like HDPE, LDPE, EVA, PP, and PVC. MPPL offers Geomembranes in HDPE, PP, and PVC.

Product Applications

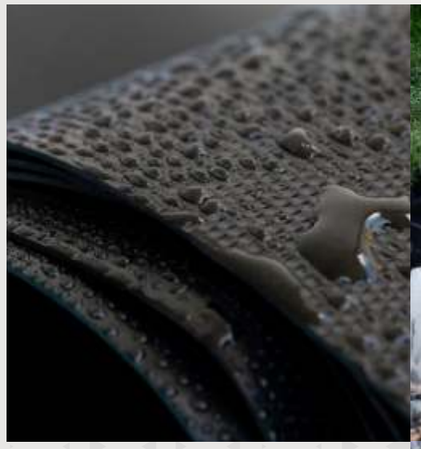
- Scaling of Household & Industrial Landfills
- Scaling of Hazardous Waste Sites
- Vertical Cut-off Walls Around Landfills
- Scaling of Concert Structure
- Ore Processing Plants
- Storage of Agricultural Slurries
- Lining of Canals & Rivers
- Spill Containment for the Chemical & Petrochemical Industries
- Storage Basins for Oil, Industrial & Sewage Sludge
- Reed Beds
- Dams & Reservoirs
- Balancing Lakes
- Heap Leaching Pads - Gold & Copper Mining
- Aqua-culture
- Landfill Sites to keep Rain Out




GEO Membrane

Technical Information

	Standard	Units	Geo-membrane
Density	ASTM D-638	gm/cm^2	0.946
Tensile Strength at Yield	ASTM D-638	N/mm	22
Tensile Strength at Break	ASTM D-638	N/mm	24
Elongation at Yield	ASTM D-638	%	632
Elongation at Break	ASTM D-638	%	15
Tear Resistance per mm thick	ASTM D-1004	N	265
Low-Temperature Brittleness	ATM D-746	(degree)C	- 70



Available Thickness

Sheets	Thickness	Available Size
Geomembrane	0.5-1 mm.	Width of 1.3 mtr.
Geomembrane	1-3 mm.	Width of 1.45 mtr.

Features and Advantages

- Durable & Leak Proof
- Light Weight, Excellent Elasticity
- High Breaking Point
- Easy Installation
- High Abrasion & Chemical Resistance
- High Elongation Rate
- High Stress Resistance
- Texture, Smooth or Glossy Surface for firmer grip on any surface.

Available Colors

Black

* Custom colour available on request.

PVC
Polyvinylchloride Sheet

RIGID
LINER
GASKET
FLEXIBLE TRANSPARENT

Polyvinyl Chloride (PVC) is produced by polymerizing the monomer vinyl chloride. PVC sheets can be fabricated and installed. PVC Sheets exhibit high impact strength and are ideal for heavy-duty industrial applications.

PVC sheets are extruded in a variety of thicknesses and colors. As flat sheets, PVC is often expanded to create voids in the material's interior, providing consistency without additional weight and cost. Sheets are cut using a saw and rotary cutting equipment.

Product Applications

- Photography Equipments
- Chlorination Equipments
- Industrial Equipments
- Liners for Bullets
- Control Cabinets & Panels
- Tanks & Vessels
- R.O. Plants
- Partition Panels
- Decorative Sheets
- Curtains




PVC
Polyvinyl chloride Sheets

Technical Information

	Standard	Units	PVC	CPVC
Density	ISO 1183	gm/cm^3	1.36	1.56
Yield Stress	ISO 527	Mpa	49	53
Modulus of Elasticity	ISO 527	Mpa	3000	2000
Vicat Softening Temperature	ISO 306	(degree) C	68	95
Flammability	DIN 4102	%	Self-extinguishing	Low flammability


Features and Advantages

- Easily form able & weldable.
- Easily drilled, punched & machined.
- Can be bounded using adhesive (solvent cement).

Available Thickness

Sheets	Thickness	Available Size
RIGID-PVC	1-10 mm.	1.22 x 2.44 mtr.
RIGID-PVC	12-25 mm.	1.3 x 2 mtr.
FLEXIBLE-PVC	1-6 mm.	1.3 x 10 mtr.
TRANSPARENT PVC	1-6 mm.	1.3 x 10 mtr.

Flexible Roll : 1.25 mtr. x 10 mtr. , 1.3 mtr. x 10 mtr.

Available Colors

Grey

* Imported Sheets of standard size and colors only available.

TPO
Thermoplastic Olefin

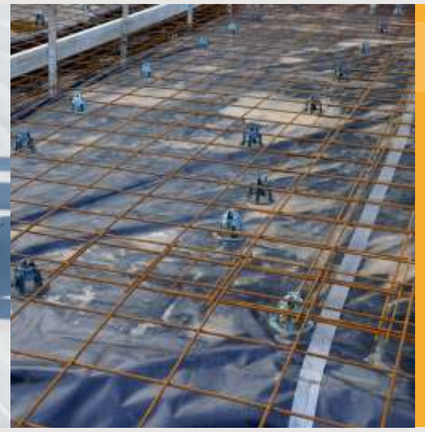
Water Proofing Membranes

Thermoplastic Olefin (TPO) refers to a mixed material composed of polyolefin (PP or PE), rubber, and certain fillers (talc, carbon, fiber). These are members of the TPE (Thermoplastic Elastomers) family.

They generally have good hardness, flexural fatigue, impact resistance, and excellent resistance to certain chemicals. TPO is also highly resistant to UV radiation and extremes in temperature, making it ideal for outdoor use. TPO Sheets are often used in both injection molding and thermoforming projects.

Product Applications

- Foundation Waterproofing
- Damp Screen for Cellers
- Damp Screen for Vertical Walls
- Flag Vacuum Systems
- Foundation & Damp Screen
- Natural & Artificial Tunnels



Technical Information

	Standard	Units	TPO
Density	ISO 1183	gm/cm^3	0.88
Tensile Strength at Yield (óS)	ISO 527-1, -2	Mpa	20
Tensile Stress at Break	ISO 527-1, -2	Mpa	6
Flexural Modulus	ISO 178	Mpa	80
Vicat Softening Point	ISO 306	(degree)C	60
Izod Impact Strength (Notched)	ISO 180	-	No Break

Features and Advantages

- High Impact Strength
- Excellent Formability
- UV Resistance
- Flame Retardant
- Resistance to: Busting, Common Parasite, Action Running Water, Root Penetration
- Easy Processing
- Flexibility at Low Temperature

Available Thickness

Sheets	Thickness	Available Size
TPO	1-10 mm.	Width of 1.3 mtr.

Available Colors

- Black
- Steel Black
- Grey

* Custom colour available on request.

TPE
Thermoplastic Elastomers

Thermoplastic elastomers (TPE), sometimes called thermoplastic rubbers, are a class of copolymers or a physical mix of polymers that consist of material with both thermoplastics and elastic properties. TPE tends to show the advantages of both rubber and plastic materials. The benefit is that they return to their original shape creating a longer life without getting deformed.

Product Applications

- Automotive Industry
- Snowmobile Tracks
- Suspension Bushing
- Medical Devices
- Electrical Cable Jacket
- Insulation
- Sneakers & Backpacks





Technical Information

	Standard	Units	TPO
Density	ASTM D792	gm/cm^3	0.97
Elongation	ASTM D412	%	480
Tensile Strength	ASTM D412	Mpa	7.98
Hardness, Shore A	ISO 868	-	78
Dielectric Strength	ASTM D149	kV/mm	27



Max. Available Width

Sheets	Thickness	Available Size
TPE	1-10 mm.	Width of 1.3 mtr.

Features and Advantages

- Good Thermal Properties
- Good Material Properties
- Required Less Energy For Production
- Colored Easily
- Required Few Additives
- Good Consistancy

Available Colors

- Black
- Steel Black
- Grey

* Custom colour available on request.

About
Solid & Welding Rod’s

Solid rods and welding rods are made by extrusion or co-extrusion. These rods are used in fabrication works, requiring an external filler. These are primarily used in thermoplastic fabrication processes, where thermoplastic sheets, pipes, and profiles can be welded using these rods. A hot air machine is required to solder the components with the rods. These rods often are extensively used in aerospace, electronics, petrochemicals, marine, and transportation industries. Mandhana Poylmers Pvt. Ltd. offers PP, PPH, HDPE, PVC, CPVC, & PVDF materials for welding & solid rods.

Mandhana Polymers
Private Limited

MPPL is equipped with start of the art technologies with injection moulding machines. MPPL also manufactures a range of components and profiles through injection molding. MPPL also manufactures a range of fittings like T bend, stub end, socket, ball ring, bends, concentric reducer, flanges, and many more items. These components and profiles are used in the automotive, fabrication, agricultural, commercial, food, and sporting industries. MPPL offers injection moulded products in materials like ABS, PP, PPH, HDPE, PVDF, PVC and CPVC.