

Engineering Plastic Products

UHMWPE Sheet/Rod



FEATURES

- Low friction coefficient, high wear resistance.
- Excellent chemical stability, corrosion resistance.
- Non-toxic, in accordance with FDA and USDA standards.
- High impact resistant.
- Good self-cleaning properties.
- Low water absorption.

APPLICATIONS

Flow promotion liners, wear strips, vent and filter plates, trough liners, guide rails and rollers hopper liners, conveyor components subject to high wear and requiring low friction, componentry in direct contact with food stuffs.

SPECIFICATIONS

Sheet			
Length (mm)	Width (mm)	Thickness (mm)	Color
3080	1220	6.5-200	White
4260	1090		
2120	1090		

Rod		
O.D. (mm)	Length (mm)	Color
20-150	1000	White

Note: Other color is available on request.

Modified sheets or special grades such as Reinforced, Anti-static, UV Proof, Flame Resistant, Super Hardness, etc., are available on request. Cutting and machining service is provided.



PROPERTIES

Item	ASMT Test Method	Value
Physical		
Relative Molecular Weight (ten thousand)	D2857	450 / 920
Water Absorption (%)	D570	< 0.01
Density (g/cm ³)	D1505	0.935
Mechanical		
Tensile Break (MPa)	D638	40-45
Elongation at Break (%)	D638	250
Flexural Strength (MPa)	D747	600
Flexural Modulus (MPa)	D790	760
Izod Impact (KJ/m ²)	D250	≥140
Hardness (Shore D)	D2240	68
Compressive Modulus (MPa)	D790	550
Thermal		
Thermal Deformation (°C)	D648	85
Linear Expansion Coefficient (10 ⁻⁵ cm/cm°C)	D696	1.5-2.5
Melting Point (°C)	D2117	136
Maximum Operating Temp. (°C)		85
Electrical		
Thermal Conductivity W/(m.k)	D177	8.5
Volume Resistivity (Ω·cm)	D257	10 ¹⁷
Breakdown Voltage (KV/mm)	D149	50
Dielectric Constant	D150	2.3

UHMWPE/HDPE/nylon/PTFE/PPOM Products

HDPE Sheet/Rod/Tube



FEATURES

Light weight, weldable, physiologically inert, electrical insulation, weatherproof, chemical resistance.

APPLICATIONS

Ideal for making insulated and corrosion resistant liners in chemical, electromechanical, food and pharmaceutical industry or can be used to be machined into mechanical parts like gear, bearing, etc.

SPECIFICATIONS

Sheet			
Length (mm)	Width (mm)	Thickness (mm)	Color
2000-10000	800-1200	0.5-8	White
2000-3100	1000-1240	10-200	

Rod		
O.D. (mm)	Length (mm)	Color
1000	10-250	White

Note: Other color is available on request.
We offer cutting and machining service.

PROPERTIES

Item	Unit	Value
Density	g/cm ³	0.95
Water Absorption	%	< 0.01
Working Temperature	°C	-48 ~ 82
Tensile Strength	Mpa	29
Elongation at Break	%	300
Impact Strength of Izod	KJ/m ²	800
Hardness	Shore A	65
Linear Expansion Coefficient	10 ⁻⁵ cm/cm°C	1.5-2.5
Thermal Deformation Temperature	°C	85
Surface Resistivity	Ω·cm	10 ¹⁷
Dielectric Strength	KV/mm	75

Extruded Nylon Rod



FEATURES

Good tenacity, abrasion resistance, oil resistance, aseismicity, the good property of molding process and water content, etc.

APPLICATIONS

Friction bearings, bushings, gears, valve seats, couplings, rollers, cams, clamps, pump components, snap connectors, etc..

SPECIFICATIONS

O.D. (mm)	Length (mm)	Color
10-400	1000	White

PROPERTIES

Item	Units	Result
Relative Viscosity		>2.0
Density	g/cm ³	1.15
Moisture Content	%	≤1.5
Tensile Strength	Mpa	70
Flexural Strength	Mpa	110
IZOD Impact	Kg/cm/cm ²	350
Elongation at Break	%	60
Flexural Elastic Modulus	Gpa	2.1
Melting Point	°C	210-230

MC Nylon Sheet/Rod/Tube



NATURAL / BLACK CAST NYLON 6

Natural & Black standard grade of Monomer Cast Nylon offers an excellent combination of Mechanical strength, stiffness and, electrical insulation and wear properties. These properties make our standard grade of nylon the perfect choice for use as gears, rollers, star wheels scrolls and many other mechanical applications where the use of metal is not possible.

GREEN / YELLOW OIL FILLED NYLON 6

Green & Yellow Oil Filled cast Nylon is an internally lubricated grade of nylon that is commonly used in applications where applied lubricants cannot be used. Oil Filled Nylons have a lower co-efficient of friction over standard grades of nylon and also offer improved wear resistance.

BLACK MoS2 FILLED NYLON 6

MoS2 Cast Nylon has a low co-efficient of friction as well as excellent wear characteristics and temperature resistance make an excellent choice for bearings and wear pads, its self-lubricating, and impact resistance properties make it suitable for gears, bearings, bushings, wear slides and many other applications.

APPLICATIONS

Friction bearings, bushings, gears, valve seats, couplings, rollers, cams, clamps, pump components, snap connectors.

SPECIFICATIONS

Sheet		
Length (mm)	Width (mm)	Thickness (mm)
1000	1000	10-100

Rod	
O.D. (mm)	Length (mm)
50-200	500

Tube		
O.D. (mm)	Wall Thickness (mm)	Length (mm)
40-210	5-85	560

PROPERTIES (FOR STANDARD GRADE)

Item	Units	Value
Density	g/cm ³	1.15-1.16
Water Absorption	%	≤0.6
Frictional Coefficient		< 0.45
Wear Loss	Mg	< 4.5
Compressive Strength	Mpa	127
Rockwell Hardness	RHM	112
Tensile Strength	Mpa	79
Flexural Strength	Mpa	130-150
IZOD Impact Strength	KJ/m	>14
Elongation at Break	%	60
Shear Strength	Mpa	80-95
Bending Elastic Modulus	Gpa	26.4-31
Heat Deformation Temperature (0.46Mpa)	°C	120
Breakdown Voltage	KV/mm	18.6

MC Nylon Sheet/Rod/Tube



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SPECIFICATIONS

Sheet		
Length (mm)	Width (mm)	Thickness (mm)
1000	1000	10-100

Rod	
O.D. (mm)	Length (mm)
50-200	500

Tube		
O.D. (mm)	Wall Thickness (mm)	Length (mm)
40-210	5-85	560

PROPERTIES (FOR STANDARD GRADE)

Item	Units	Value
Density	g/cm ³	1.15-1.16
Water Absorption	%	≤0.6
Frictional Coefficient		< 0.45
Wear Loss	Mg	< 4.5
Compressive Strength	Mpa	127
Rockwell Hardness	RHM	112
Tensile Strength	Mpa	79
Flexural Strength	Mpa	130-150
IZOD Impact Strength	KJ/m	>14
Elongation at Break	%	60
Shear Strength	Mpa	80-95
Bending Elastic Modulus	Gpa	26.4-31
Heat Deformation Temperature (0.46Mpa)	°C	120
Breakdown Voltage	KV/mm	18.6

PTFE Sheet/Rod/Tube



FEATURES

- Excellent chemical resistance
- Low coefficient of friction
- High operating temperature and stability
- Physiological insert (virgin)
- Excellent electrical properties

APPLICATIONS

Suitable for corrosion resistant liner, seal, lining and gasket, guide rail, dielectric material for different frequency, bridge bearing slide, etc.

SPECIFICATIONS

Skived Sheet			
Width (mm)	Thickness (mm)	Length (m)	Color
1000,1200, 1500,2000	0.2-6	Customized on request	White

Sheet			
Length (mm)	Width (mm)	Thickness (mm)	Color
1200	1200	1-80	White
1500	1500		
2000	1000		

Rod			
Type	O.D. (mm)	Length (mm)	Color
Compressed	15-300	300	White
Extruded	10-200	1000	

Tube				
Type	O.D. (mm)	Wall Thickness (mm)	Length (mm)	Color
Soft Tube	4-14	2	100,000	White
Hard Tube	20-35	5-12.5	150	
	40-160	7.5-62.5	300	

PROPERTIES

Item	Units	Value
Density	g/cm ³	2.2-2.3
Water Absorption	%	< 0.01
Working Temperature	°C	-180~260
Tensile Strength	Mpa	14
Elongation at Break	%	140
Izod Impact	KJ/m ²	13
Hardness	Shore A	60~80
Linear Expansion Coefficient	10 ⁻⁵ cm/cm°C	1.05
Thermal Deformation Temperature	°C	150
Surface Resistivity	Ω·cm	10 ¹⁶
Dielectric Strength	KV/mm	10

CHEMICAL RESISTANCE PRODUCTS