HANSA SEALANT
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ZHENJIANG HANSA SEALANT CO.,LTD

Various fluoroplastic Parts, Rubber Parts, Composite Seals, Custom Machining Service

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COMPANY PROFILE

Welcome to our company: Zhenjiang Hansa Sealing Materials Co., Ltd., we are primarily an export-oriented company dedicated to providing customers with high-quality products and superior service. Our factory mainly produces a variety of plastic profiles including PTFE, PEEK, UHMW-PE, PA(nylon), PP, PU ,Gland Packing,Rubber sealing ,Composite Gasket etc, as well as Virgin PTFE Molding /Molding PTFE Compound/Extruded PTFE Power, custom-made products based on samples or drawings.

Our export advantages:

1. Rich export experience: We are familiar with export processes, regulations and standards, and can provide professional export consulting and support to customers.

2. Quality Products: We have our own factory, strictly controlling the production process and quality inspection to ensure that our export products meet international standards and customer requirements.

3. Diverse Product Range: Our product line covers various industries and fields, including but not limited to PTFE, UHMW-PE nylon, PP, PU, PEEK plastics, as well as custom-made products for CNC, lathe, milling machine processes, and more. 4. Global market network: We have established a wide international market network, and have established long-term and stable partnerships with buyers from many countries and regions.so that Zhenjiang Hansa Sealing Materials Co., Ltd. will be known all over the world.

5. Quality after-sales service: We know the importance of after-sales service, we believe that careful after-sales service will add to our cooperation.

Customer first, integrity foremost, win-win cooperation and joint progress is our corporate culture. If you have any requirements or questions about our products or services, please contact us at any time.

PRODUCT CONTENTS

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PTFE Micro-powder

Description

PTFE Micropowders (Polytetrafluoroethylene Micropowders) are refined, low-molecular-weight PTFE materials, predominantly used in non-fluoropolymer industries. When incorporated into other products, they impart fluoropolymer-like properties to enhance performance. With the exception of applications as dry-film lubricants, PTFE micropowders are rarely used in isolation.

Material Advantages

Enhanced Lubricity & Reduced Friction: Improves wear/corrosion resistance in engineering plastics. Forms in-situ PTFE film on screw/barrel surfaces to reduce material flow resistance, boosting processing efficiency of commodity plastics.
Multifunctional Performance Gains
Surface Property Enhancements
Operational Benefits

Application Fields

Paint Industry ： Effectively improve non-viscosity, reduce friction, improve wear resistance; Improve texture effect, improve surface brightness, anti-scratch; Improved corrosion resistance and reduced infiltration.
Engineering Rubber And Plastic Industry： Reduce the friction coefficient of the terminal material, improve the lubricity, wear resistance, improve the diffusion effect of the production process, and more convenient demoulding; Mixed with flame retardant to prevent dripping; Aging resistance.
Ink Grease Industry ： Mainly used for printing inks to improve friction resistance, surface smoothness and gloss, but also to reduce blocking.

Main Properties

Item	Test Method	HS-L001	SF-L002	SF-L003	Unit
Specific Gravity	ASTM D4894	2.15-2.19	2.15-2.19	2.15-2.19	g/cm3
Whiteness	INTERNAL	≥95	≥95	≥95	%
Moisture Content	INTERNAL	≤0.03	≤0.03	≤0.03	%
Volume Density	ASTM D4894	~350	~400	~450	g/l
Thermal Weight Loss	INTERNAL	≤0.2	≤0.2	≤0.2	%
Melting Point	ASTM D4894	327 ± 5	327 ± 5	327 ± 5	℃
Ave.Particle size	INTERNAL	2 ~ 5	5 ~ 10	10 ~ 15	μm

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Virgin PTFE Molding /Molding PTFE Compound/Extruded PTFE Power




Item	Description	Code	Type
Virgin PTFE Molding Free Flow Power	100% PTFE Power	M81-HS	M81-HS-L/M81-HS/M81-HS-D
Modified PTFE Molding Free Flow Power	100% Modified PTFE Power	M81-HS-M	/
Virgin PTFE Molding Fine Cut Power	100% PTFE Power	MG-HS	MG40-HS/MG50-HS
Molding PTFE Compound	85%PTFE + 15%Glass Fiber	15GL-HS	15GL-HS-FF/15GL-HS-NFF
	75%PTFE +25%Glass Fiber	25GL-HS	25GL-HS-FF/25GL-HS-NFF
	85%PTFE + 15%Carbon Power	15CAR-HS	15CAR-HS-FF/15CAR-HS-NFF
	85%PTFE + 15%Graphite	15GR-HS	15GR-HS-FF/15GR-HS-NFF
	85%PTFE + 15%Carbon Fiber	15CF-HS	15CF-HS-FF/15CF-HS-NFF
	55%PTFE + 45%Stainless Steel	45STST-HS	45STST-HS-FF/45STST-HS-NFF
	60%PTFE +40%Bronze	40BR-HS	40BR-HS-FF/40BR-HS-NFF
	40%PTFE +60%Bronze	60BR-HS	60BR-HS-FF/60BR-HS-NFF
	80%PTFE +15%Glass Fiber + 5%MoS2	15GL5M-HS	15GL5M-HS-FF/15GL5M-HS-NFF
	75%PTFE +23%Carbon + 2% Graphite	23CAR2GR-HS	23CAR2GR-HS-FF/23CAR2GR-HS-NFF
Extruded Grade PTFE Pre-sinter Granules	100% PTFE Power	M81-HS-E	/

Code	Specific Gravity (g/㎤)	Ave.Particlesize(μm)	Molding Shrinkage(%)	Max Sintering Tem.(℃)
M81-HS	2.15-2.19	350-800	1.5-3.0	380
M81-HS-M	2.15-2.19	350-380	2.0-3.5	380
MG40-HS	2.15-2.19	15-20	2.5-3.5	380
MG50-HS	2.15-2.19	20-30	2.0-3.0	380
15GL-HS-FF	2.18-2.22	500-700	1.5-3.0	380
15GL-HS-NFF	2.18-2.22	-	1.7-3.0	380
25GL-HS-FF	2.20-2.24	500-700	1.3-2.8	380
25GL-HS-NFF	2.20-2.24	-	1.5-3.0	380
15CAR-HS-FF	2.08-2.14	500-700	1.5-3.0	380
15GR-HS	2.12-2.16	500-700	1.5-3.0	380
15CF-HS	2.08-2.12	500-700	1.5-2.5	380
45STST-HS	3.15-3.22	600-800	1.5-3.0	380
40BR-HS	3.08-3.14	600-800	1.5-3.0	380
60BR-HS	3.85-3.90	600-800	1.5-3.0	380
15GL5M-HS	2.26-2.3	500-700	1.5-3.0	380
23CAR2GR-HS	2.02-2.08	500-700	1.5-3.0	380
M81-HS-E	2.15-2.19	400 ± 100		380

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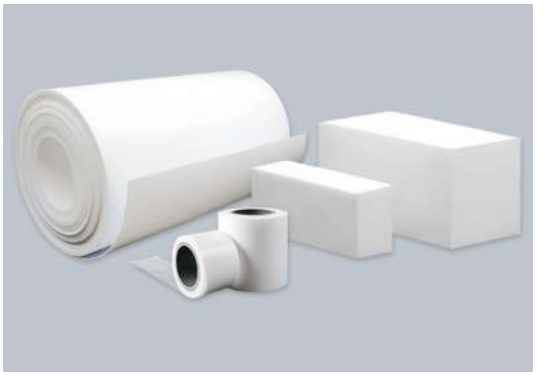
PTFE Sheet

Description

PTFE sheet， by suspension polymerization of PTFE resin molding. It has the best chemical resistance in known plas-tics and does not age. It has the best coefficient of friction in known solid materials and can be used at -180℃ to +260 ℃ without load.



Application

Industrial: Seals, gaskets, bearings, valve components, and linings for pipes and tanks.;

Electronics: Insulation for circuit boards, connectors, and electronic components;

Automotive: Bushings, hoses, and coatings for fuel lines;

Food & Beverage: Conveyor belts, molds, and containers;

Medical: Catheters, implantable devices, and labware.

Main Properties

Properties	unit	Result
Apparent density	g/m²	2.10~2.30
Tensilestrength(min)	MPa	15.0
Elongationatbreak(min)	%	150
Dieletricstrength(min)	KV/mm	10

Type	Size description
PTFE Molded Sheet	Regular size is Square: width x Length, from 150mm – 2000mm, 1500mm*3000mm, 1200mm*4000mm Thickness: 4mm – 500mm
PTFE Skived Sheet	Width 1000,1200,1500,2000mm,2700mm,Length≥200 Thickness 0.2mm-10mm
PTFE Skived Tape	Width 100---2700mmlength≥1000 Thickness 0.5-4mm
PTFE Skived Film	Width10--300mmThickness 0.018mm-0.5mm

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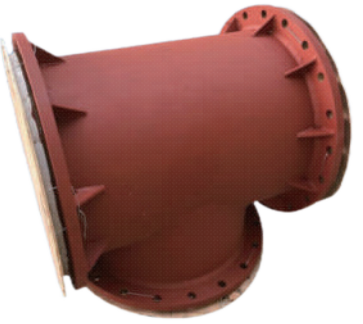
Etched PTFE Sheet

Description

Everyone knows that due to the special arrangement of fluorine atoms in polytetrafluoroethylene (PTFE) molecules, PTFE materials have high stability and non-stick properties. Conventional pressure-sensitive adhesives cannot provide large-area, high-strength bonding for PTFE products. Sodium treatment on the surface of PTFE enhances its polarity and surface tension, making the sodium-treated PTFE surfaces capable of bonding with metals, non-metals, and other plastics. Sodium treatment is applied to materials and ranges including: high-temperature adhesive tapes, copper-clad PTFE sheets, mouse friction pads, bridge expansion sliders, and sports arena moving canopy sliders.

Application Of Etched PTFE



Fluoropolymers of any shape or complexity—from microchips to full-scale roll stock, including tapes, sheets, tubing, molded forms, and machined components in any configuration—can be etched and bonded. This treatment can be applied to one or multiple surfaces or selectively performed within tight tolerances.

Note: The etched surface will undergo discoloration, resulting in a brownish appearance.

Etching is available in single-side (EOS, standard) or double-side (E2S) configurations.

Attention For Store

The etched layer of PTFE is highly susceptible to moisture in the air, ambient UV light (including fluorescent lighting), and heat. Therefore, strict isolation from these three factors is critical during storage. It is strongly recommended to store PTFE in dark, temperature- and humidity-controlled environments.

1.Positioning: Store at the middle or bottom of shelves to avoid direct exposure to sunlight/fluorescent lights.

2.Duration Control:

Unopened packages: Maximum recommended storage period ≤1 year.

Opened packages: Use etched tubing within 4 hours after removal from packaging.

Immediately reseal unused goods and return to storage.

Temporarily stored opened packages in production areas (fully resealed) must be consumed within 1 week.

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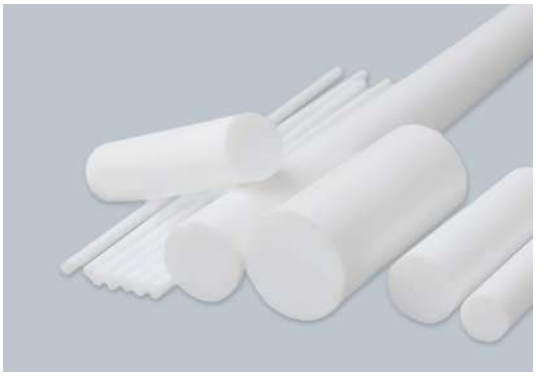
PTFE Rod

Description

Polytetrafluoroethylene (PTFE) rod is an unfilled PTFE resin (which may include regenerated PTFE resin) shaped through compression molding, paste extrusion, or plug extrusion.



Application

PTFE rod is primarily used for manufacturing:Such as pipes, shafts, and profiles requiring extended dimensional stability,Non-Standard Mechanical Parts,Seals/Gaskets,Rings，Wear-Resistant Plate，Insulating Components and so on.

Main Properties

Item	Unit	Value rang
Density	g/cm3	2. 1-2. 3
Flexural Strength	Mpa	11-14
Tensile Strength	MPa	21-28
Friction Coefficient	/	0.04
Water Absorption	%	<19
Dielectric Strength	KV/mm	10
Operating Temperature	℃	-1800-260
Melting Temperature	℃	325

Note:When the diameter of rod is larger than 16mm,only test Apparent density.

Type and specification

TYPES	Diameter(mm)	Length(mm)
Pressed Rod	1-4mm	Produced under requirements
Extruded Rod	3-600mm	Produced under requirements
Molded Rod	12-1200mm	100-300mm

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PTFE Tube

Description

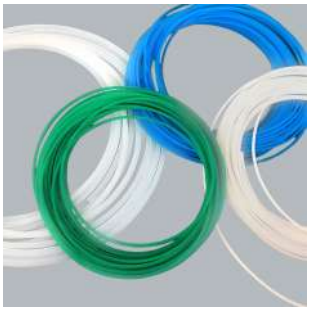
There are three types of PTFE pipes. Extrusion tube and molded tube are made of suspension polymerized PTFE resin, and push tube is made of dispersed PTFE resin by plunger push processing. Among known plastics, PTFE has the best chemical corrosion resistance and excellent dielectric property.

Application

Widely used in fluid conveying, sealing and insulation scenes under harsh environment; can be used for mechanical processing into gaskets, bushings, general equipment accessories and other rough materials for processing and manufacturing; can also be used for chemical pipeline lining.

Main Properties

Properties	unit	Result
Apparent density	g/m^3	2.10~2.30
Tensile strength(min)	MPa	18.0
Elongationatbreak(min)	%	230



Type and specification

Type	Outside Diameter(mm)	Inside Diameter (mm)	Wall Thickness(mm)	Length(mm)
PTFE Molded Tube	30–1230	10 – 997	5 – 117	100–300
PTFE Extrusion Straight Tube	12 – 420	5–400	3.5–10	1000,4500
PTFE Ram–Extruded Tube	2–29	1–25	0.5 – 2	As Request
PTFE Capillary Hose	0.76–9.38	0.25–8.26	0.255–0.56	305m/153m/100m

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Modified PTFE

Description

Suspended PTFE resin is mixed with various fillers to form filled PTFE resin. A variety of fillers suitable for mixing with PTFE include glass fiber, carbon fiber, tin bronze and lubri–cants (such as graphite and molybdenum disulfide), which have been widely used in large–scale production.

Main Properties

No	Filled Compound And Content By Wt	Tensile Strength Mpa min	Ultimate Strength % min	Compression Strength Mpa min
1	20% Glass Fiber	10	120	16
2	25% Glass Fiber	10	100	16
3	20%Glass Fiber 5%Graphite	10	120	16
4	60%Bronze	10	80	20
5	15%Carbon Fiber	11	130	16
6	24%Bronze 12%Glass Fiber 6%Carbon	9	100	16
7	15%Glass Fiber 10% Poly–imide5%Graphite	10	120	16.7

PS: Any other fillers if you need , we also can offer according to your request.

Carbon Fiber PTFE

Color Filled PTFE

Bronze Filled PTFE

Graphite Filled PTFE

Application

Item	Necessary Properties	Suggested PTFE Variety
Gasket	Creep Resistance,Chemical Resistance	1,2,3,5,
Valve Seas	Creep Resistance,Chemical Resistance,Low Friction	1,2,3,5,
Packing	Creep Resistance,Chemical Resistance,Low Friction,Low Wear,Stiffness	1,3,5,7,
Bearings	Low Wear,Low Friction,Creep Resistance	1,4,5,6,
Bearing Pads	Creep Resistance,Low Friction,Resistance To Weathering	3,
Piston Rings	Creep Resistance,Low Friction,Chemical Resistance,Stiffness	1,2,3,5

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Expanded PTFE (ePTFE)

Description

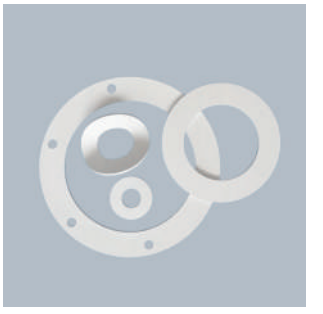
Expanded PTFE(eptfe) is a new type of medical polymer material, which is made of PTFE resin through special processing methods such as stretching. White, elastic and flexible, with a network structure formed by the connection of microfibers, these microfibers form countless pores, so that the expanded PTFE(eptfe) can be bent arbitrarily (over 360°), good hemocompatibility, biological aging resistance, used in the manufacture of artificial blood vessels, heart patches and other medical products.

Application

Used for sealing gasket processing, valve pipe seal packing, threaded joint seal, pipe flange face seal, etc.

Property		Unit	Results			Requirements
			1#	2#	3#	
N –heptane extraction	150°C F,2h	mg/in2	< 0.1	< 0.1	< 0.1	⩽ 0.5 (single–use,volume is less than 3.78L/) ⩽ 1.8 (single–use, volume is more than 3.78L/, 3.78) ⩽ 18 (repeated use/)
Distilled water extraction	212°C F,2h	mg/in2	< 0.1	< 0.1	< 0.1	
8% alcohol extract	212°C F,2h	mg/in2	< 0.1	< 0.1	< 0.1	



Type and Specification

Different Size can be Customized

Item	Details Specification
Expanded PTFE Sheet	Thickness: 0.5mm– 10mm, width and length: regular 1500*1500, also can customized in rolls
Expanded Tape	Thickness : 1.5mm – 10mm, Width: 1/8” –6” (3mm – 150mm), length in 5M,8M,15M,20M,30M or as request
Expanded Rope Cord	Diameter: 1mm – 25mm , Length : in rolls
Expanded Tube	Regular size : 1.7* 0.9/ 2.3*1.5/4*2/6*4/3.5*2.5/3*2/12*10.....
PTFE Thread Tape	Regular size : Width 20/25/30/50，Thickness is around 0.2mm, Oil and without oil

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PFA Products

Description

PFA plastic, also known as melt–processable polytetrafluoroethyl–ene, is a copolymer of a small amount of perfluoropropyl perfluoro–ethylene ether and polytetrafluoroethylene (PTFE)

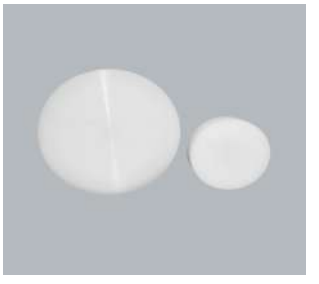
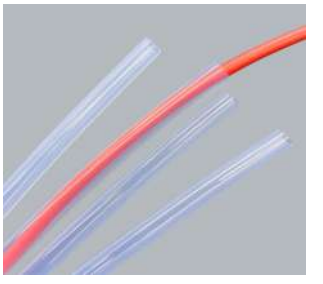
The difference between PFA and PTFE

1. Processing properties: PFA has lower melt viscosity, which means that PFA pipes are easier to be processed by ex–trusion, injection molding and other methods, and can be made into more complex and fine tubular structures.
2. Mechanical properties: superior mechanical strength and creep resistance,which makes PFA perform better in terms of load bearing pressure, bending resistance and dimensional stability.
3. Appearance characteristics: PFA tube pipe is generally semi–transparent, while PTFE pipe is mostly opaque milky white.
4. Application areas:PFA is more competitive in applications that require higher precision, greater pressure resistance and better transparency..

Main Properties

Properties	test method	unit	Typical values
Density	D792	g/m²	2.12~2.20
Impactstrength	D256/23℃	Kj/m²	12
Elongation at break	D638/23℃	%	200~300
Tensilestrength	D638/23℃	Mpa	20~30
Temperature range	/	℃	–200~260
Dielectricstrength	/	KV/mm	25~35



Type and Specifications

Type	Size(mm)	
PFAROD	Diameter:6~300	Length:500~2000
PFA Tube	OD:30~400	Length:≤1000
PFA Extruded Tube	Diameter:2~24	Length:Any Length
PFASheet	Width:500~1000Length:500~2000	Thickness:3~100

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FEP Products

Description

FEP, also known as F46, is the copolymer of TFE and HFP, modified material of PTFE. FEP is the soft plastic material which means the tensile strength, abrasion resistance, anti-creep of FEP is lower than many other engineering plastics. However, FEP makes up for the shortage of PTFE as it is added with fine machining ability of thermoplastic plastic, which makes FEP a replacement of PTFE in fields such as electric wires and aerospace.

The differences between FEP and PTFE

Both FEP and PTFE are fluoroplastics. FEP has a melting point of about 260°C, with good processability and can be injection-molded. PTFE has a higher melting point of 327°C, offering better high-temperature resistance but is difficult to melt-process, mostly using processes like molding. They differ in processing convenience and high-temperature resistance limits.

Main Properties

Properties		unit	Typical values
Material properties	Specific gravity	g/com²	2.14–2.17
	Melting point	℃	288
	Working temperature	℃	–80–+200
	Absorption rate		< 0.01
	Thermal expansion rate	℃	8–11
Mechanical properties	Tensile strength	Mpa	14
	Elogation at break	%	160
	Rigidity	SH	R45
	Coefficient of kinetc friction		0.06–0.11
Electrical properties	Volume resistivity	ΩM	1*1018

Specification

Code	3*2	4*25	6*4	8*5	...	1/8*1/16	1/4*1/8	3/8*1/4	...
OD(mm)	Φ3.0	Φ4.0	Φ6.6	Φ8.0	...	Φ1/8*	Φ1/4*	Φ3/8*	...
ID(mm)	Φ2.0	Φ2.5	Φ4.0	Φ5.0	...	Φ1/16*	Φ1/8*	Φ1/4*	...

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PEEK products

Description

Peek polyether ether ketone is a special engineering plastic with excellent properties such as high temperature resistance, self–lubrication, easy processing and high mechanical strength. It can be manufactured into various mechanical parts, such as automobile gears, oil screens, gearshift starter discs; aircraft engine parts, automatic washing machine wheels, medical device parts, etc.

Application

1. Peek Custom Parts applications include automotive (including aviation) transportation market accounting for about 50% of PEEK resin consumption, semiconductor manufacturing equipment accounting for 20%, compressor valve sheet and other general mechanical parts products accounting for 20%, medical devices and analytical instruments and other markets accounting for 10%.

2.PEEK Plate Sheets and PEEK bar fields:PEEK often encounters the phenomenon of a small quantity but many varieties during its application in some special fields. In such cases, mechanical processing and manufacturing using rods, plates, and other profiles is highly advantageous.

Type and Specification

For the size of others items, you can contact us online.

Item	Width(mm) × Thickness(mm)		Length (mm)
Sheet	97 × 24,116 × 36,180 × 167,278 × 34.5,300 × 20,385 × 12,415 × 15,415 × 65,800 × 32.5,240 × h,600 × h		1000
	410 × h		1350
Rod	Diameter(mm)		1000, 2000
	1 ~ 200		
Tube	Outside Diameter(mm)	Inside Diameter(mm)	1000 or in rolls
	1.6 ~ 580	0.13 ~ 450	

Main Properties

Item	Unit	PEEK450G	PEEK450GL30	PEEK450CA30	PEEK450FC30
		100%PEEK	PEEK+30%Glass fiber	PEEK+30% Carbon fiber	PEEK+30% (Carbon fiber+Graphite+ PTFE)
Density	g/cm3	1.3 ± 0.01	1.5 ± 0.01	1.4 ± 0.01	1.43 ± 0.01
Water Abs(25°C,24Hrs)	%	0.5	0.11	0.06	0.06
Melting point	°C	343	343	343	343
Tensile strength(23°C)	Mpa	100	155	220	134
Bending strength(23°C)	Mpa	163	212	298	186
Rockwell hardness		103	107	102	99
Dielectric strength	KM/mm	18	19		

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PVDF Products

Description

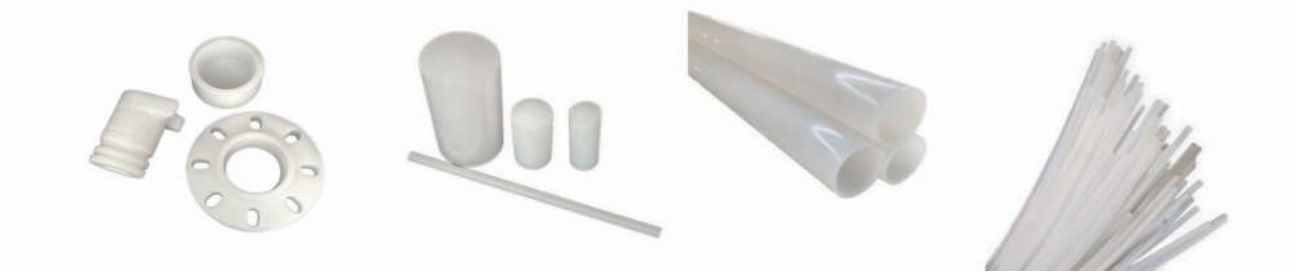
PVDF is a high–performance fluoroplastic with excellent chemical resistance, good weather resistance, high mechanical strength and piezoelectricity, and a wide operating temperature range. It can be made into pipes, films, electronic components and medical products, and is widely used in chemical, electronic and other fields.

Application

In the chemical industry, it is used to make corrosion–resistant pipes and valves; in the electronics industry, it serves as insulating materials and sensors; in the medical field, it is applied to products like infusion sets; in construction, it acts as weather–resistant coatings. It is also used in lithium battery separators and water treatment membranes, adapting to multiple scenarios with its chemical resistance, mechanical properties and piezoelectricity.

Main Properties

Properties	Test Method	Unit	Typical Value Range
Melting point		℃	175
Density	ASTM D792	g/cm^3	1.76–1.78
Hardness			D75–D85
Tensile Strength	ASTM D638	MPa	40–85
Elongation at Break	ASTM D638	%	300–450
Continuous Service Temperature		℃	–40 to 150
Impact strength	ASTM D256		1105
Dielectric Constant (1kHz)	ASTM D150	10^6HZ	6.43
Volume resistivity	ASTM D257	Ω*cm	$>10^{15}$



Type and Specifications

Type	Size(mm)		
Sheet	Width:630–2000 Length:2000–4000		Thickness:3–100
Rod	Diameter:10–250		Length:1000
Welding–Rod	3*3*4,3*3*5,4*4*6	Φ3,Φ4,Φ5	Φ2.5*2,Φ3.5*2
Pipe	Diameter:DN15–DN300 OD:20–40		S:3–5
Butt–weld fittings	OD:20–225		Length:50–160
Socket fittings	OD:26–130		S:1.5–10
Valve	DN15–DN300		

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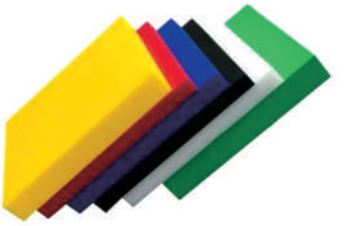
POM Products

Description

POM is a high–crystalline polymer with properties like high strength, wear resistance and self–lubrication. It works at –40℃ – 100℃ for long, often made into gears, bearings, pipe fittings, etc.



Type and Specifications

Type	Size(mm)	
Sheet	1000*2000 Thickness:8–10	Color:natural color and black
ESD Sheet	Color:natural Thickness:8–40	615*1230
	Color:black Thickness:8–50	
Rod	Diameter:θ4–θ200	Color:natural color or black

Main Properties

Project			Test method	Unit	Typical value		
					PCM–H	PCM–C	PCM–SO
Basic performance	Density		ISO 1183	g/cm^3	1.43	1.41	1.33
	Bibulous rate		ISO 62	%	0.23	0.22	0.2
	Tensile modulus		ISO 527	Mpa	3600 78	2900 64	–
Mechanical properties	Yield stress		ISO 527	Mpa	35	35	–
	Yield strain		ISO 527	%	100	90	–
	Flexural strength		ISO 178	Mpa	2800	2800	50
	Pendulum impact strength		ISO 179	Kj/m^2	200	150	–
	Pendulum impact strength		ISO 179	Kj/m^2	10	7.0	–
Thermal performance	Melting point		ISO 8146	℃	175	166	166
	Loaddeflection temperature	(1.80Mpa)	ISO 8146	℃	175	105	–
		(0.45Mpa)			170	156	–
	Thermal deforma–tiontemperature	18.6Kgt/cm^2	D648	℃	–	–	100
		4.6Kgt/cm^2					140
Electrical	Dielectric constant	(100HZ)	IEC 250	–	3.9	3.9	–
		(1MHZ)					
	Dielectric loss factor	(100HZ)	IEC 250	–	0.003	0.003	–
		(1MHZ)			0.008	0.008	–
	Volume resistivity		IEC 93	Ω/cm	10^{14}	10^{14}	10^9–10^{11}
	Surface resistivity		IEC 93	Ω/cm	10^{13}	10^{13}	10^9–10^{11}

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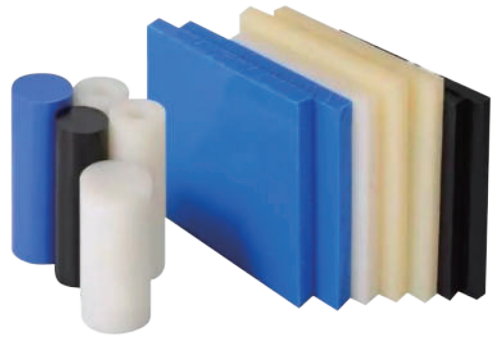
PA sheet ,rod and tube



Description

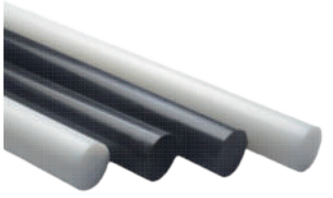
Nylon(PA) has high mechanical strength, high softening point, heat resistance, generally operating temperature of –40℃~+100℃, low friction coeffcient, abrasion resistance, self lubrication, shock absorption and sound attenuation, weak acid esistance, alkali resistance and general solvent resistance, good electrical in–sula– tion, self extinguishing, non–toxic, odorless, weather esis–tance, etc. The affinity between nylon and glass fiber is very good, so it is easy to strengthen. The flammability of nylon is UL94V2, and the oxygen index is 24–28. At the same time, nylon can be modified, such as monomer casting nylon, anti–static nylon, etc.

Applications

Widely used in friction bearings, sliding and transmission devices, pipe clips, clutch parts, gears, guides and other me–chanical parts.

Main Properties

Items	test method	unit	Typical value
Apparent density	ISO1183	g/m^3	1.05~1.18
Elongation at break	ISO527	%	40~75
Tensilestrength	ISO527	Mpa	50~85
Temperature range	UL746B	℃	–40~100
Dielectricstrength	IEC60243–1	KV/mm	30



Type and Specifications

Type	Size(mm)	
PA Sheet	Width:500–1000 Length:200–2000	Thickness:5–250
PA RO	Diameter:6–500	Length:500–1000
PA Tube	OD:50–620	Length:≤1000
PA Extruded Tube	Diameter:3–24	Length:Any Length

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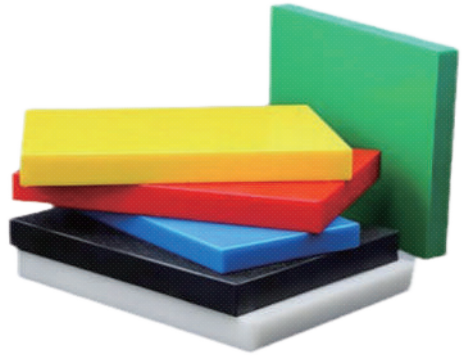
HDPE rod and sheet



Description

HDPE is a kind of high crystallinity, non-polar thermoplastic resin. The surface is waxy and slippery, which can float on the water. It has good chemical stability, can resist the corrosion of most acids, organic solutions and hot water, and has good electrical insulation. It has been welded. It meets the requirements of food hygiene and is widely used in the food, medical and pharmaceutical industry.

Applications

Drinking water and sewage pipes, hot water pipes, transport containers, pump and valve parts, medical appliance parts, seals, cutting plates, sliding profiles. It is widely used in chemical industry, machinery, power, clothing, packaging, food and other industries.

Main Properties

Properties	test method	unit	Typical values
Density	DIN53479	g/m^2	0.95
Friction coefficient		–	0.28%
Bibulous rate	DIN53495	%	0.01
Tensile strengthatyield	ISO527	Mpa	21.9
Elongation at break	ISO527	Mpa	30
Tensile rate	ISO52	%	840
Tensile modulus	ISO527	Mpa	860
Shore hardness	DIN53505	62	
Dielectric constant	DIN53483	2.3	

Type and Specifications

Type	Size (mm)	
HDPEROD	Diameter:10~200	Length:1000~3000
HDPESheet	Width:≤2000Length:≤4000	Thickness:5~250

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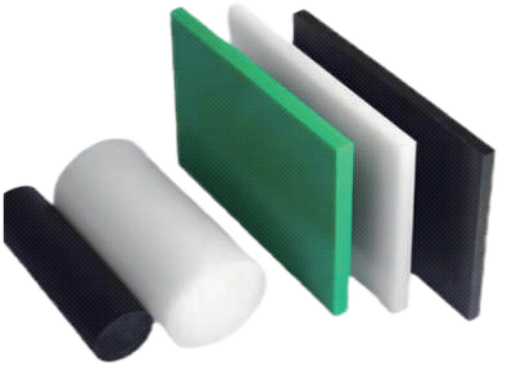
UHMW-PE ROD 、Sheet



Description

UHMW-PE is a thermoplastic engineering plastic with a molecular weight of more than 3 million. It has good blocking resistance, self ubrication, non water absorption, high wear resistance and corrosion resistance. It can still maintain good mechanical proper-ties at-269℃ .

Applications

It is widely used in raw coal bin, clay bin, iron powder bin, mixing bin and other silos in coal, power, cement, metal- lurgy and other industries. And textile, paper making, packaging, transportation, machinery, chemical industry, mining, pe-troleum, agriculture, construction, electricity, food, medical, sports and other fields, and began to enter the conventional weapons, ships, cars and so on.

Main Properties

Properties	Testmethod	Unit	Typical values
Apparent density	ISO11863	g/m^3	0.93
Elongation at break	ISO527	%	300-400
Tensilestrength	ISO 0527	Mpa	30-35
Temperature range	/	℃	-50~90
Dielectricstrength	IS060243-1	KV/mm	40




Type and Specifications

Type	Size(mm)	
UHMW-PE ROD	Diameter:10~200	Length:1000~3000
UHMW-PE Sheet	Width:1020-1550 Length:2040-6180	Thickness:10~260

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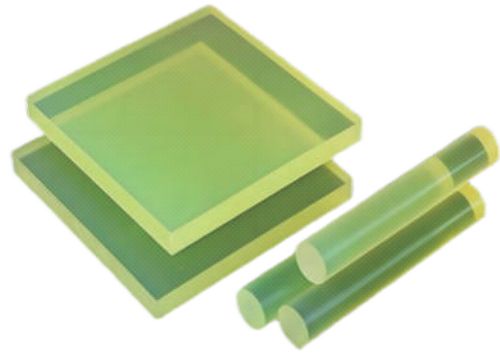
PU Rod ,sheet and tube



Description

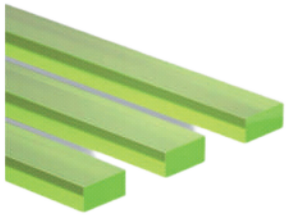
PU,commonly known as Urethane Adhesive and Spring Adhesive, is a new synthetic material between plastic and rubber, which is formed by the reaction of polymer polyol and isocyanate and chain extension. It can maintain high elasticity in awide hard–ness ange,and its excellent and unique comprehensive properties are not possessed by ordinary plastics and rubbers.

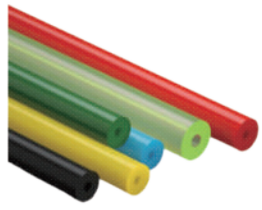
Applications

It is suitable for shock absorbing pads, pads, springs of metallurgy, mining, petroleum, automobile, building materials,sports,heavy machinery,large stamping equipment,and punching film of various metal plates,pipes. The friction of general mechanical equipment plays a buffering or shock absorption role,and is an ideal mold spring.

Main Properties

Properties	test method	unit	Typical values
Apparent density	ASTM–D792	g/m^3	1.18~1.5
Elongation at break	ASTM–D638	%	8–10 15–17
Tensilestrength	ASTM–D638	Mpa	30~35
Tensile strength	ASTM–D638	CN/M	20~52
Water absorption	ASTM–D570	%	>0.8





Type and Specifications

Different Size can be customized

Type	Size(mm)	
PUROD	Diameter:2–400	Length 1000, Or Cut under Request
PUTube	ID: 8mm , OD: 20/25/30/35/40/45/50/55/60	Length:500
	ID:10mm,OD: 70/75/80/85/90/100	
PUSheet	Width : 1000mm,thickness: 1/2/3/4/5/6/8	Length : customized As request
	Width:500mm,thickness:10/12/15/20/25/30/35/40/45/50/55/60	

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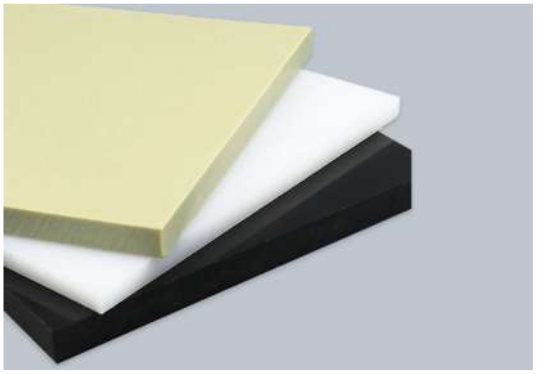
PP Rod, Tube and Sheet



Description

Polypropylene is a semi crystalline thermoplastic. It has high impact resistance, strong mechanical propertes, and resistance to a variety of organic solvents and acid and alkali corrosion. Polypropylene has low specific gravity,s non–toxic,tasteless, and can contact food. Its strength, stiffness, hardness and heat resistance are better than PE.It is one of the common polymer materials.

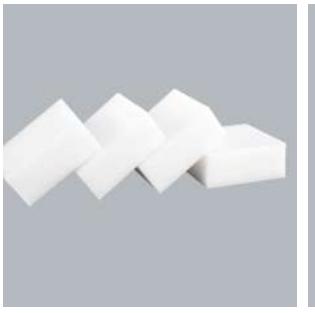
Applications

Water and sewage pipes,sealing element spraying carriers,corrosion resistant tanks,barrels,acid and alkali resis–tant industries,waste water, waste gas emission equipment,washing towers,dust–free rooms, semiconductor plants and related industrial equipment and machinery, food machinery and chopping boards, electroplating processes,etc.

Main Properties

Properties	Test method	unit	Typical values
Density	ASTM D792	g/m^3	0.91
Yield point tensilestrength	ASTM D638	Kg/m^2	308
Elongation at break	ASTM D638	%	10.45
Rockwell hardness	ASTM D785A	–	87
Bending modulus ofelasticity	ASTM D790	Kg/m^2	144550
Meltflow rate	ASTM D1238	G/10min	1.7






Type and Specifications

Type	Size(mm)	
PPROD	Diameter:10~200	Length:1000~3000
PPTube	Diameter:20~160	Length:≤6000
PPSheet	Width:≤2000	Thickness:5~250
	Length:≤4000	

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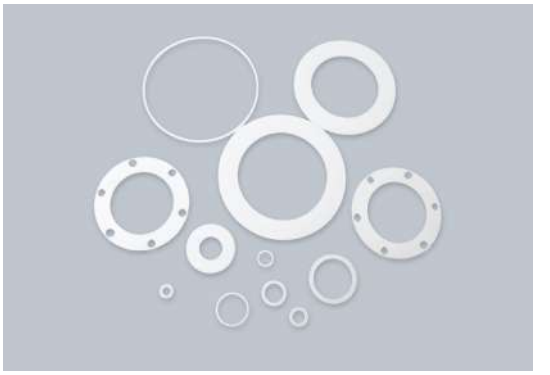
PTFE Gasket



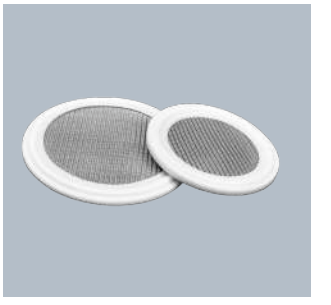
Description

Tetrafluoroethylene (PTFE) gaskets, also known as PTFE gaskets or PTFE gaskets abroad, there are flat gaskets, V-gaskets, piston rings, ball valve gaskets, etc., made from polytetrafluoroethylene rods, tubes, and plates through mechanical machining or cutting.

Applications

PTFE gaskets are widely used in the chemical industry, mainly for sealing flange connections, pipe connections, valves and pumps and other equipment. In addition, PTFE gaskets are also widely used in aerospace, automobile manufacturing, rail transit and other fields, providing reliable sealing guarantee for the normal operation of various equipment and systems.



Main Properties

Properties	Unit	Result
Apparent Density	g/cm3	2.10 ~ 2.30
Tensile Strength(min)	Mpa	15.0
Elongation At Break(min)	%	150
Dielectric Strength(min)	KV/mm	10

Type and Specifications

Types	Regular Size and Standard
Flange Gasket（eptfe Gasket）	Standard by GB, HG,JIS, ANSI , ASME , and others customized size.
Pressure Gauge Gasket	8.5*3*2/10*5*2/11*5*2/12*5*2/12*8*1/12*8*2/16*8*2/18*6*2/20*10*2/24*14*2/ M10/M14/M20.....
Live Joint Gasket	DN15/DN20/DN32/DN40/DN50.....
Screw Gasket	M2,M3,M4,M5,M6,M8,M10,M12,M14,M16,M18,M20,M22,M24,M27,M30,M36
Corrugated Pipe Gasket	12*6*2/14*8*2/18*10*2/24*16*2/30*20*2/39*30*2/45*35*2/55*45*2

For other types of gasket such as Sanitary Grade Clamp Gasket, Filter Quick Mounting Gasket, kindly contact us for price and detailed size.

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Modified PTFE Gasket

Description

The modified filled PTFE gasket is based on pure PTFE, it scientifically incorporates functional fillers such as glass fiber, carbon fiber, graphite, and bronze powder. While retaining PTFE's inherent advantages like resistance to high and low temperatures (–200℃ to 260℃), chemical corrosion, non–stick properties, and low friction, it effectively improves the defects of pure PTFE, such as easy cold flow and low strength, and significantly enhances the gasket's pressure resis–tance, dimensional stability, and creep resistance.

Application

Filled modified PTFE gaskets offer excellent material properties. Different formulations can handle most chemical fluids, solvents, hydraulic oils, and lubricants resistant to acids and alkalis. They provide long–term sealing performance and are suitable for static gasket applications across various conditions—such as hydrogen electrolyzers, petrochemicals, and electronics. The temperature range spans from refrigerants up to 260°C (500°F).

Special Formula

1.White pure PTFE
2.Black PTFE + special compound
3.Blue PTFE+special compound
4.Blue PTFE+Glass Bead compound
5.White PTFE+Aluminum silicate bead compound
6.Black PTFE+Glassfiber compound
7.Pink PTFE+Silicone compound
8.White PTFE+Mica compound

Main Properties

Item	1	2	3	4	5	6	7	8
Color	white	black	blue	blue	white	Black	pink	white
Density(g/cm^3)	2.13	2.30	2.40	1.59	2.17	2.18	2.21	2.23
Tensile Strength(mpa)	36.83	16.2	18.45	15.4	16.37	30.98	11.89	26.11
Elongation(%)	420.80	289.4	272.46	251.93	167.95	338.02	107.2	345.21
Hardness(Mpa)	58	67	60	60	65	63	59	61
Compression(%)	20.88	6.73	18.47	10.72	10.12	8.77	5.23	11.28
Rebound Rate(%)	43.06	53.89	43.20	47.31	30.44	52.05	42.24	41.27
Stress relaxation rate	44.55	30.52	33.87	40.78	31.89	35.15	37.40	36.47
Air tightness	$1.65*10^{-4}$	$2.32*10^{-4}$	$2.50*10^{-4}$	$1.64*10^{-4}$	$\leqslant 1*10^{-4}$	$0.66*10^{-4}$	$0.33*10^{-4}$	$3.84*10^{-4}$

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Rubber Sealing Gasket

Description

The rubber gasket is a sealing element that utilizes elastic deformation to fill contact surface gaps, widely used to prevent the leakage of liquids or gases, while also providing damping and cushioning effects. Its performance highly depends on the type of rubber material and its formulation design.

Type and Applications

Type Of Materials	Features	Application
(NR)	High elasticity, wear resistance, and insulation.	Vibration damping components, tape and pipe fittings, flange seals.
(NBR)	Excellent oil resistance and wear resistance.	Fuel system, hydraulic fluid lines, automotive engine seal
(EPDM、EPM)	Excellent ozone resistance and superior weather ability	Automotive cooling system, outdoor equipment seal, hot water pipeline
(Silione,VMQ)	Non-toxic, excellent flexibility	Food contact materials, medical devices, high-temperature oven seals, electronic component insulation
(FPM、FKM)	Excellent chemical resistance (acids, bases, solvents)	Chemical equipment, aerospace fuel systems, semiconductor industry

Main Properties

Type Of Materials	Density	Hardness (Shore A)	Tensile Strength (Mpa)	Elongation (%)	Temperature (℃)
(NR)	0.93	20 ~ 100	6.89 ~ 27.56	100 ~ 700	-50 ~ 70
(NBR)	0.96 ~ 1.02	30 ~ 100	6.89 ~ 27.56	100 ~ 600	-30 ~ 120
(EPDM、EPM)	0.85	30 ~ 100	6.89 ~ 20.67	100 ~ 300	-60 ~ 150
(Silica,VMQ)	0.98	20 ~ 95	3.45 ~ 10.34	50 ~ 800	-60 ~ 230
(FPM、FKM)	1.4 ~ 1.95	60 ~ 90	6.89 ~ 16.54	100 ~ 350	-20 ~ 200

Specifications

Any Special Size and Customized size we also can offer.

Items	Size Details
Gasket	Standard by GB, HG,JIS, ANSI , ASME , and others customized size.
O-Ring	ID: 1-226mm CS:2mm

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Gland Packing

Description

Braided packing are made of different fibers according to different requirements.It is made of carbon fiber,PT– FE fiber,aramid fiber , glass fiber and mixed fiber of aramid and carbon fiber. It offers better lubrication,cor– rosive resistance,low abrasioin and easy to inlay and dismount and it is widely used for pumps and valves.– Temperature range–180℃~+200℃ .

Type and Applications

Series	Description
Aramid	gold aramid fiber packing, yellow aramid fiber packing, aramid fiber interwoven white PTFE packing, aramid fiber interwoven black PTFE packing This series of packing is made of ara–mid fiber as the main material, and is precisely woven with lubricant and PTFE emulsion for many times.
PTFE	white PTFE packing, black PTFE packing, white PTFE interwoven aramid fiber packing, black PTFE interwoven aramid fiber packing, PTFE pre–oxygenated wire packing, white PTFE im–pregnated silicone oil packing, white PTFE impregnated rubber packing This series of pack–ing uses PTFE as the main material.
Graphite	flexible graphite packing, metal reinforced graphite packing, carbon fiber reinforced graphite packing, carbon fiber metal reinforced graphite packing The packing characteristics of this series are made of graphite as the main material.
Carbon fiber	carbon fiber reinforced graphite packing, carbon fiber metal reinforced graphite packing This series of packing is mainly based on carbon fiber as the theme material.
With rubber core	The series with rubber core is wrapped in high–quality synthetic fibers with a super elastic silicone core, and woven by multiple impregnated PTFE emulsions, lubricants and barriers.
High–temperature/ ultra–high– temperature packing	which is made of high–quality synthetic fibers precision woven with a fine structure.

Main Properties

Property	A	B	C	D
Pressure	10Mpa	10Mpa	3 – 30Mpa	10Mpa
Working Temperature	260°C	260°C	280°C	260°C
Line Speed	10m/s	10m/s	0 – 20 m/s	10m/s
PH Value	0 – 14	0 – 14	0 – 1	0 – 14

Specifications: 3mm × 3mm ~ 50mm × 50mm

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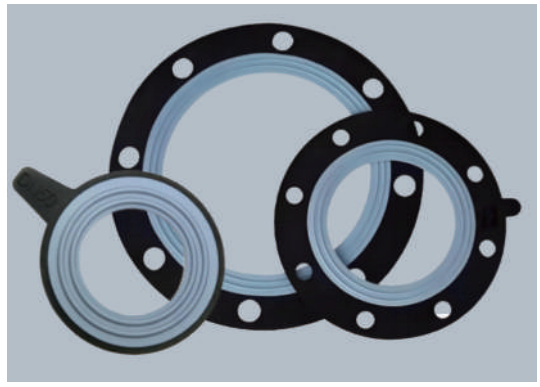
Composite Gasket



Description

The composite gasket is a sealing element composed of two or more different materials, typically used in applications requiring specific sealing performance. Its design aims to combine the advantages of different materials to achieve enhanced sealing effectiveness, chemical resistance, temperature tolerance, and mechanical strength.

Application

Petrochemical Industry: Used for sealing pipelines, valves, reactors, and other equipment.
Power Industry: Employed in sealing high-temperature and high-pressure steam pipelines.
Automotive Industry: Applied to sealing components such as engines, transmissions, and gearboxes.
Food and Pharmaceutical Industries: Utilized for sealing hygienic equipment, requiring non-toxic and corrosion-resistant materials.

Type and Specifications:

Item	Materials	Size and Standards
PTFE Composite Gasket	PTFE ,rubber, fiber ,metal	AMSEM,HG20607-97,HG20628=97, SH3402-96
Metal Wound Gasket	Alternating Metal (e.g., Stainless Steel) and Non-Metal (e.g., Graphite, PTFE) Wound Gasket	
Rubber Composite Gasket	Rubber Layer-Metal Skeleton Composite with Fiber Reinforcement (e.g., Aramid, Glass Fiber)	

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PTFE CNC parts

Description

PTFE CNC parts are widely used in chemical industry, electronics, machinery, food and medicine, aerospace, construction, automo–bile and home appliances because of their corrosion resistance, high temperature resistance, low friction and insulation.

Application Of PTFE CNC Machining Customized Parts

– Corrosion resistant equipment : used to manufacture pipes, valves, pumps, seals and so on, can withstand strong acids, strong alkalis and organic solvents.
– Liner material : as liner for reactor and storage tank to prevent corrosion.
– High frequency equipment : Insulation components for high frequency communication equipment.
– Seals : used for mechanical seals, piston rings, etc., heat resistant and corrosion resistant.
– Medical equipment : Seals and pipes for pharmaceutical equipment, corrosion resistant and non–toxic.
– Lubricating materials : lubricated parts used in high and low temperature environments.
– Weathering materials : weathering parts used in outdoor buildings.
– Insulation components : used for electrical insulation and heat resistance.

Mechanical Properties

Technical Index	Unit	Value
Specific Gravity	g/cc	2.15–2.20
Tensile Strength	Pa	(1,961–3,521) × 10^4
Elongation at Break	%	250–500
Compressive Strength (10% deformation)	Pa	19.52 × 10^6
Impact Strength (Unnotched)	kgf•cm/cm^2	No break³
Impact Strength (Notched)	kgf•cm/cm^2	24.6–31.6
Compressive Strength	Pa	(1.834–2.030) × 10^7
Hardness HB	–	4.54
Friction Coefficient	–	0.13–0.16
Wear Scar	–	14.5⁴

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PEEK CNC parts

Description

Polyetheretherketone (PEEK), as a high–performance thermoplas–tic material, has emerged as a rising star in engineering applica–tions due to its exceptional physical, chemical, and biological properties.

How To Choose PEEK

Industry	Application Scenarios	Material Recommend
AutomotiveAuto Parts Industry	High–temperature engine components Shock absorbers, transmission components Wear–resistant bearings and gears	PEEK450G /PEEK450CA30
Aerospace Industry	Engine components Landing gear systems High–temperature seals	PEEK450GL30/PEEK450FC 30
Medical Equipment Industry	Surgical instruments Medical pump components Endoscope parts	PEEK450G/PEEK450CA30
Industrial Automation Robotics	Robotic joints Bearings and gears Actuators	PEEK450CA30/PEEK450 FC
Energy & Power Industry	High–temperature steam valves Turbine components Power transmission parts	PEEK450CA30/PEEK450 FC

Mechanical Properties

Property	Conditions	Unit	Value
Tensile Modulus	23℃	MPa	3725
Tensile Yield Strength	23℃	MPa	100–115
Tensile Rupture Strength	23℃	MPa	/
Compressive Strength	–	MPa	120
Flexural Modulus	–	MPa	4065–4275
Elongation at Break	–^[2]	%	15–45
Elongation at Yield	–	%	/
Unnotched Impact Strength	–	kJ/m^2	No break

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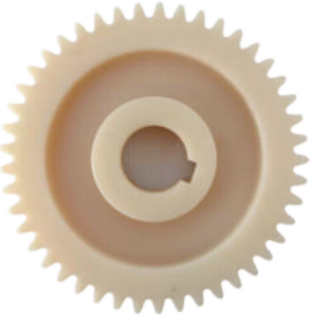
PA CNC parts

Description

Nylon, as a high–volume engineering plastic, is widely used in machinery, electrical appliances, textile equipment, chemical fa–cilities, aerospace, and other fields. It has become an indispens–able structural material across various industries .

Main characteristics as follows

–Excellent Mechanical Properties. High mechanical strength and good toughness.
–Outstanding Heat Resistance. Highly crystalline nylons like Nylon 46 exhibit high heat deflection temperatures and can operate long–term at 150° C. PA66 reinforced with glass fiber reaches heat deflection temperatures exceeding 250°C.
–Superior Electrical Insulation. Nylon possesses high volume resistivity and breakdown voltage, making it an excellent insulating material for electrical applications.
–Self–Lubrication and Wear Resistance. Nylon demonstrates excellent self–lubricating properties with a low friction co–efficient, ensuring extended service life for transmission components.
– Excellent Weather Resistance
–Moisture Absorption: Nylon exhibits significant water absorption capacity, with saturated moisture content reaching 3% or more.



Properties Analysis

Property	Unit	PA6	PA66	PA612	PA11	PA12	PA1212
Density	g/cm³	1.14	1.14	1.07	1.04	1.02	1.02
Melting Point	℃	220	260	212	185	177	184
Tensile Strength	MPa	74	80	62	58	51	55
Elongation at Break (23℃)	%	180	60	100	330	200	270
Elongation at Break (–40℃)	%	15	15	10	40	100	239
Flexural Modulus	MPa	2900	2880	2070	994	1330	1330
Rockwell Hardness (R Scale)	–	120	121	114	108	105	105
Heat Deflection Temperature (0.46 MPa)	℃	190	235	180	150	150	150
Heat Deflection Temperature (1.86 MPa)	℃	70	90	90	55	55	52

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UHMWPE CNC parts

Ultra–High Molecular Weight Polyethylene (UHMWPE) is an advanced engineering thermoplastic renowned for its exceptional physical properties and outstanding chemical stability, making it widely applicable across diverse industries. With a molecular weight typically exceeding 3 million (3×10^6), UHMWPE demonstrates exceptional wear resistance, high impact strength, and a low coefficient of friction, positioning it as a benchmark material for demanding tribological applications.

Ultra–High Molecular Weight Polyethylene (UHMWPE) demonstrates extensive application potential across diverse fields due to its unique properties:

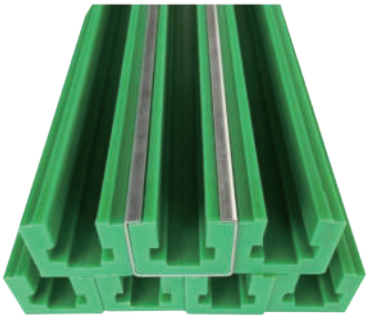
1.Medical Applications:Artificial joints: UHMWPE is extensively used in hip and knee implants

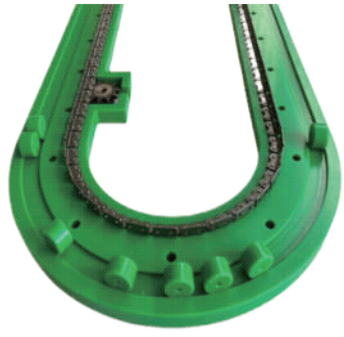
2. Industrial Engineering:Mining/petrochemical sectors: Deployed as wear–resistant liners in conveyor systems, slurry pumps, and chutes, reducing downtime by 30–50% compared to steel.

3. Food Processing :Used in conveyor belts, cutting boards, and hygienic seals.

4. Military & Protective Equipment: Lightweight UHMWPE–based armor panels (NIJ Level IIIA) offer 40% weight reduction over traditional steel plates.

5. Sports Equipment:Winter sports: Ski bases and ice skate blades leverage low friction ($\mu \approx 0.05–0.10$) for enhanced glide performance.





Mechanical Properties

Property	Value	Unit
Rockwell Hardness	62	–
Flexural Modulus	485	MPa
Tensile Strength	21.2	MPa
Izod Notched Impact	75.1	kJ/m^2
Elongation at Break	6454	%
Flexural Strength	11.6	MPa

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