

Property

Product Name: PPS.
Chemical Name and Synonym: Polyphenylene sulfide.

Material Names

PPS is sold under a variety of brand names including Techtron[®], cn pps.

PPS

Polyphenylene sulfide (PPS) is an organic polymer consisting of aromatic rings linked by sulfides. Synthetic fiber and textiles derived from this polymer resist chemical and thermal attack. PPS is used in filter fabric for coal boilers, papermaking felts, electrical insulation, film capacitors, specialty membranes, gaskets, and packings. PPS is the precursor to a conductive polymer of the semi-flexible rod polymer family. The PPS, which is otherwise insulating, can be converted to the semiconducting form by oxidation or use of dopants.

Polyphenylene sulfide is an engineering plastic, commonly used today as a high-performance thermoplastic. PPS can be molded, extruded, or machined to tight tolerances. In its pure solid form, it may be opaque white to light tan in color. Maximum service temperature is 218 °C (424 °F). PPS has not been found to dissolve in any solvent at temperatures below approximately 200 °C (392 °F).

PPS is one of the most important high temperature thermoplastic polymers because it exhibits a number of desirable properties. These properties include resistance to heat, acids, alkalies, mildew, bleaches, aging, sunlight, and abrasion. It absorbs only small amounts of solvents and resists dyeing.

PolyPhenylene Sulfide (PPS) offers the broadest resistance to chemicals of any advanced engineering plastic. They have no known solvents below 392°F (200°C) and are inert to steam, strong bases, fuels and acids. Minimal moisture absorption and a very low coefficient of linear thermal expansion, combined with stress-relieving manufacturing, make PPS ideally suited for precise tolerance machined components. It is ideal for structural applications in corrosive environments or as a PEEK replacement at lower temperatures.

Techtron[®] (unfilled)

As an unfilled material, Techtron[®] is easily machined to close tolerances. It is ideal for structural applications in corrosive environments or as a lower-temperature replacement for PEEK. Standard Techtron[®] PPS is off-white in color.

Techtron[®] PSGF (40% glass filled)

This product is the most recognized filled grade of PPS. It offers better dimensional stability and thermal performance than unfilled Techtron[®] PPS and maintains its strength to above 425°F (220°C).

Benefits

- Excels in corrosive environments to 425°F (220°C)
- Excellent chemical resistance
- Essentially zero moisture absorption
- Machines to tight tolerances, dimensionally stable
- Excellent alternative to PEEK at lower temperatures

Jiangxi Beluns Plastics Co., Ltd. is a professional manufacturer of high performance plastics, fluoroplastics and general engineering plastics such as plates, bars, films and various special-shaped parts. The raw materials for plastic products can be processed according to the brand type specified by the customer. Extrusion, molding, turning, cnc processing are our main processing types. Products made from each material have different uses. Please contact us to select the appropriate plastic material for processing. Some of the data comes from the Internet, Understand if something is wrong.

Applications

Aerospace components
Medical and diagnostic device parts
High pressure liquid chromatography components
Wafer retaining rings for CMP polishing
Pump & valve components
“Down-hole” applications
HVAC equipment
Lantern rings
Chip nests
Retainer rings
Oil field parts

BELUNS

Jiangxi Beluns Plastics Co., Ltd. is a professional manufacturer of high performance plastics, fluoroplastics and general engineering plastics such as plates, bars, films and various special-shaped parts. The raw materials for plastic products can be processed according to the brand type specified by the customer. Extrusion, molding, turning, cnc processing are our main processing types. Products made from each material have different uses. Please contact us to select the appropriate plastic material for processing. Some of the data comes from the Internet, Understand if something is wrong.