

M SEALS PPS-ND85

Unreinforced Virgin PPS

MATERIAL DATA SHEET (Version 6.0 – 05.2022)



Description

M Seals PPS-ND85 material is a high-performance unreinforced virgin PPS (Polyphenylensulfide) material. This material was developed to bridge the gap between general engineering plastics such as POM/Nylon and the more advanced engineering plastics such as PEEK.

PPS-ND85 material has good chemical resistance, mechanical strength and rigidity even when working at elevated temperatures. There are no known solvents that dissolve PPS, however the natural (uncoloured) grade can be susceptible to UV radiation damage.

Physical Properties

Property	Test method	Unit	Typical value
Colour			Natural/Beige
Density	ISO 1183	g/cm ³	1.36
Hardness	ISO 868	Shore D	85
Tensile Strength	ISO 527-2	MPa	102
Tensile strength at yield	ISO 527-2	MPa	100
Elongation at break	ISO 527-2	%	4
Flexural strength	ISO 178	Mpa	151
Modulus of flexural elasticity	ISO 178	Mpa	4000
Glass transition temperature *	DIN 53765	°C	+97
Melting temperature	DIN 53765	°C	+281
Service temperature short term **		°C	+260
Service temperature long term **		°C	+230

* (Information found from public sources)

** (Individual testing in application conditions is mandatory)

Main Characteristics

- Good thermal resistance
- Good chemical resistance
- Good resistance to high energy radiation
- Good stiffness and creep resistance
- Good dimensional properties
- Good heat deflection temperature

Typical Products

- Wear strip
- Bearing rings / guide rings
- Bushes
- Valve seat seals
- Anti-Extrusion / Back-Up Rings
- Bespoke parts

Typical Applications

Due to its good thermal and chemical resistance, high strength and dimensional stability, this material is a good material choice for applications where general engineering plastics such as POM or Nylon cannot be used and where advanced engineering plastics such as PEEK are an excessive material choice. PPS-ND85 is commonly used within the Oil and Gas and Aerospace industries.

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