

PPS+40%GF refers to a composite material that consists of Polyphenylene Sulfide (PPS) as the base polymer and 40% Glass Fiber (GF) as the reinforcing filler. This combination enhances the mechanical properties of PPS, including increased strength, stiffness, and dimensional stability. The addition of glass fibers improves the overall performance of PPS in terms of resistance to heat, chemicals, and wear.

Chemical Description

Description	Value
Material Type	Semi-Crystalline Thermoplastic
Chemical Name	PPS Polyphenylene Sulfide
Additives	40% Glass Filled
Color	Brown,dark brown or black
UV Resistant	Yes

Physical Properties

Property	Maximum Unless Range is Specified
Density,lbs/in ³	0.061
Water Absorption, 24 hrs, Immersion,% by wt.	0.063
Coefficient of Linear Thermal Expansion, x10 ⁻⁵ in./in./°F	2.2
Heat Deflection Temp,°F at 263psi	500
Melting Point Temp,°F	540
Max Continuous Operating Temp,°F	450
Minimum Operating Temp,°F	-4
Flammability Rating,UL94	V-0
Dielectric Strength,kVcm	233
Dielectric Constant at 1 MHz	4.6

Mechanical Properties

Property	Maximum Unless Range is Specified
Tensile Strength,ksi	6.2
Tensile Modulus,ksi	900
Compressive Strength,ksi	25
Compressive Modulus,ksi	580
Flexural Strength,ksi	11
Flexural Modulus,ksi	1,200
Elongation at Break	1.1%
Hardness Shore D	88
Notched Izod Impact Strength,ft-lb/in	0.7

The material properties in this datasheet are provided by one of the manufacturers collaborating with Naxtry. Please note that material properties may slightly vary among different manufacturers. Naxtry can accommodate customer requests for specific materials or brands.