

## GEHR Plastics PPS Polyphenylene Sulfide

Category : Polymer , Thermoplastic , Polyphenylene Sulfide (PPS)

### Material Notes:

The linear polyphenylsulfide belongs to the semi-crystalline materials and offers a very high mechanical capacity, thermal and chemical resistance distinguished at the same time, high dimensional stability, and creep strength. The LOI belongs to the highest of polymers. By the reinforcement with glass polymers strength is achieved, which is comparable with light metal. PPS closes the gap between the technical synthetics and PEEK with its strength and economy. Properties very high strength and rigidity high hardness high thermal stability high dimensional stability very high chemical resistance every good insulating properties high weather resistance high resistance to hydrolysis Applications include components in machine-making, pump parts, fan parts, impellers, parts in the fuel and automotive sector.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_GEHR-Plastics-PPS-Polyphenylene-Sulfide.php](http://www.lookpolymers.com/polymer_GEHR-Plastics-PPS-Polyphenylene-Sulfide.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.35 g/cc	1.35 g/cc	ISO 1183
Water Absorption	0.020 %	0.020 %	ISO 62

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	95	95	
Tensile Strength at Break	72.0 MPa	10400 psi	ISO 527
Tensile Strength, Yield	88.0 MPa	12800 psi	ISO 527
Elongation at Break	21 %	21 %	ISO 527
Elongation at Yield	3.4 %	3.4 %	ISO 527
Modulus of Elasticity	4.15 GPa	602 ksi	ISO 527
Flexural Strength	141 MPa	20500 psi	3.5%; ISO 178
Charpy Impact Unnotched	>= 25.0 J/cm <sup>2</sup>	>= 119 ft-lb/in <sup>2</sup>	ISO 179
Coefficient of Friction	0.40	0.40	DIN 53375

Thermal Properties	Metric	English	Comments
CTE, linear	53.0 μm/m-°C	29.4 μin/in-°F	DIN 53752
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Thermal Conductivity	0.250 W/m-K	1.74 BTU-in/hr-ft <sup>2</sup> -°F	DIN 52612
Maximum Service Temperature, Air	150 °C	302 °F	
Deflection Temperature at 1.8 MPa	115 °C	239 °F	

(264 psi) Thermal Properties	Metric	English	ISO 75 Comments
Flammability, UL94	V-0	V-0	

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+11 ohm-cm	>= 1.00e+11 ohm-cm	VDE 0303
Surface Resistivity per Square	>= 1.00e+15 ohm	>= 1.00e+15 ohm	VDE 0303
Dielectric Constant	3.2	3.2	DIN 53483
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Strength	18.0 kV/mm	457 kV/in	VDE 0303
Comparative Tracking Index	125 V	125 V	CTI; IEC 60112

Descriptive Properties	Value	Comments
Acid Resistance	yes	
Aromatic Resistance	limited	
Bondability	yes	
CKW Resistance	yes	
Color	Natural	
Hydrocarbonate Resistance	yes	
Hydroxide Resistance	limited	
Ketone Resistance	yes	
Physiological indifference according	yes	
Resistance Against Hot Water	yes	
UV Stabilization	yes	

## Contact Songhan Plastic Technology Co.,Ltd.

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