

## PolyOne Therma-Tech™ SF-4500 TC Polyphenylene Sulfide (PPS)

Category : Polymer , Thermoplastic , Polyphenylene Sulfide (PPS)

### Material Notes:

Information provided by PolyOne

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_PolyOne-Therma-Tech-SF-4500-TC-Polyphenylene-Sulfide-PPS.php](http://www.lookpolymers.com/polymer_PolyOne-Therma-Tech-SF-4500-TC-Polyphenylene-Sulfide-PPS.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.67 g/cc	1.67 g/cc	ASTM D792
Water Absorption	0.040 %	0.040 %	@ 24 hrs; ASTM D570
Linear Mold Shrinkage, Flow	0.0010 cm/cm	0.0010 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	123	123	ASTM D785
Tensile Strength at Break	100 MPa	14500 psi	Type I, 5.1 mm/min; ASTM D638
Elongation at Break	2.0 %	2.0 %	Type I, 5.1 mm/min; ASTM D638
Tensile Modulus	31.0 GPa	4500 ksi	Type I, 5.1 mm/min; ASTM D638
Flexural Strength	296 MPa	42900 psi	ASTM D790
Flexural Modulus	20.0 GPa	2900 ksi	ASTM D790
Compressive Strength	193 MPa	28000 psi	ASTM D695
Izod Impact, Notched	0.170 J/cm @Thickness 3.18 mm, Temperature 23.0 °C	0.318 ft-lb/in @Thickness 0.125 in, Temperature 73.4 °F	Injection Molded; ASTM D256A

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	11.0 µm/m-°C	6.11 µin/in-°F	ASTM D696
Thermal Conductivity	11.0 W/m-K	76.3 BTU-in/hr-ft²-°F	ASTM C177
Deflection Temperature at 0.46 MPa (66 psi)	299 °C @Thickness 3.18 mm	570 °F @Thickness 0.125 in	Annealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	263 °C @Thickness 3.18 mm	505 °F @Thickness 0.125 in	Annealed; ASTM D648
Flammability, UL94	V-0	V-0	UL 94

Electrical Properties	Metric	English	Comments
Volume Resistivity	80 - 100 ohm-cm	80 - 100 ohm-cm	ASTM D257
Surface Resistance	80 - 100 ohm	80 - 100 ohm	ASTM D257

Processing Properties	Metric	English	Comments
Melt Temperature	304 - 332 °C	579 - 630 °F	
Mold Temperature	121 - 149 °C	250 - 300 °F	
Drying Temperature	149 °C	300 °F	
Dry Time	6.00 hour	6.00 hour	

Descriptive Properties	Value	Comments
Features	Electrically Conductive	
	Thermally Conductive	
Forms	Pellets	
Generic Material	PPS	
Generic Name	Polyphenylene Sulfide (PPS)	
Regional Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	North America	
	South America	

## Contact Songhan Plastic Technology Co.,Ltd.

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