



CoolPoly® D5112 Thermally Conductive Polyphenylene Sulfide (PPS)

CoolPoly D series of thermally conductive plastics transfers heat, a characteristic previously unavailable in injection molding grade polymers. CoolPoly is lightweight, netshape moldable and allows design freedom in applications previously restricted to metals. The D series is electrically non-conductive and can be used for its dielectric properties.

Thermal	SI/Metric		Testing Standard
Thermal Conductivity	6 W/mK		ASTM E1461
Thermal Diffusivity	0.0353 cm ² /sec		ASTM E1461
Specific Heat	0.949 J/g°C		ASTM E1461
Mechanical	SI/Metric	English	Testing Standard
Tensile Modulus	26200 MPa	3800 ksi	ISO 527-1
Tensile Strength	42 MPa	6100 psi	ISO 527-1
Nominal Strain @ Break	0.23 %	0.23 %	ISO 527-1
Flexural Modulus	19800 MPa	2870 ksi	ISO 178
Flexural Strength	77 MPa	11200 psi	ISO 178
Impact Strength			
Charpy Unnotched	4.00 kJ/m ²	1.90 ft-lb/in ²	ISO 179-1
Charpy Notched	1.20 kJ/m ²	0.571 ft-lb/in ²	ISO 179-1
Physical	SI/Metric	English	Testing Standard
Density	1.73 g/cc	0.065 lb/in ³	ISO 1183
Mold Shrinkage			
Flow	0.1 %	0.001 in/in	ASTM D551
Cross-Flow	0.3 %	0.003 in/in	ASTM D551

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