



CoolPoly® E3603 Thermally Conductive Polyphthalamide (PPA)

CoolPoly E 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 E series is electrically conductive and provides inherent EMI/RFI shielding characteristics.

Thermal	SI/Metric		Testing Standard
Thermal Conductivity	20 W/mK		ASTM E1461
Thermal Diffusivity	0.12 cm ² /sec		ASTM E1461
Heat Capacity	1.05 J/g°C		ASTM E1461
Mechanical	SI/Metric	English	Testing Standard
Tensile Modulus	9070 MPa	1315 ksi	ISO 527-1
Tensile Strength	44 MPa	6380 psi	ISO 527-1
Nominal Strain @ Break	0.563 %	0.563 %	ISO 527-1
Flexural Modulus	9840 MPa	1427 ksi	ISO 178
Flexural Strength	75 MPa	10875 psi	ISO 178
Impact Strength			
Charpy Notched	4.73 kJ/m ²	2.25 ft-lb/in ²	ISO 179-1
Charpy Notched	2.00 kJ/m ²	0.952 ft-lb/in ²	ISO 179-1
Physical	SI/Metric	English	Testing Standard
Density	1.56 g/cc	0.056 lb/in ³	ISO 1183
Mold Shrinkage			
Flow	0.4 %	0.004 in/in	ASTM D551
Cross-Flow	0.6 %	0.006 in/in	ASTM D551

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