



CoolPoly® D4302 Thermally Conductive Copolyester Elastomer (COPE)

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	2.3 W/mK		ASTM E1461
Thermal Diffusivity	0.0118 cm ² /sec		ASTM E1461
Specific Heat	1.36 J/g°C		ASTM E1461
Mechanical	SI/Metric	English	Testing Standard
Tensile Modulus	4780 MPa	693 ksi	ISO 527-1
Tensile Strength	40 MPa	5800 psi	ISO 527-1
Nominal Strain @ Break	2.2 %	2.2 %	ISO 527-1
Flexural Modulus	3330 MPa	483 ksi	ISO 178
Flexural Strength	61 MPa	8845 psi	ISO 178
Impact Strength			
Charpy Unnotched	24.5 kJ/m ²	11.7 ft-lb/in ²	ISO 179-1
Charpy Notched	2.95 kJ/m ²	1.40 ft-lb/in ²	ISO 179-1
Physical	SI/Metric	English	Testing Standard
Density	1.47 g/cc	0.0531 lb/in ³	ISO 1183
Hardness	73 Shore D	73 Shore D	ASTM D2240
Mold Shrinkage			
Flow	0.7 %	0.007 in/in	ASTM D551
Cross-Flow	1 %	0.010 in/in	ASTM D551

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