



## CoolPoly® E4507 Thermally Conductive Polycarbonate (PC)

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	3.6 W/mK		ASTM E1461
Thermal Diffusivity	0.022 cm <sup>2</sup> /sec		ASTM E1461
Specific Heat	1.26 J/g°C		ASTM E1461
Flammability	V0 @ 2.0mm		UL 94
Mechanical	SI/Metric	English	Testing Standard
Tensile Modulus	4340 MPa	629 ksi	ISO 527-1
Tensile Strength	40 MPa	5800 psi	ISO 527-1
Nominal Strain @ Break	1.4 %	1.4 %	ISO 527-1
Flexural Modulus	4600 MPa	667 ksi	ISO 178
Flexural Strength	73 MPa	10875 psi	ISO 178
Impact Strength			
Charpy Unnotched	13 kJ/m <sup>2</sup>	6 ft-lb/in <sup>2</sup>	ISO 179-1
Charpy Notched	3.3 kJ/m <sup>2</sup>	1.6 ft-lb/in <sup>2</sup>	ISO 179-1
Physical	SI/Metric	English	Testing Standard
Density	1.32 g/cc	0.0477 lb/in <sup>3</sup>	ISO 1183
Mold Shrinkage			
Flow	0.3 %	0.003 in/in	ASTM D551
Cross-Flow	0.4 %	0.004 in/in	ASTM D551

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