

CoolPoly® D1202

Thermally Conductive Polypropylene (PP)

Description

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.

Physical Properties	Value	Unit	Test Standard
Density	1390	kg/m ³	ISO 1183
Mold Shrinkage – Parallel	0.3	%	ISO 294-4
Mold Shrinkage – Normal	0.6	%	ISO 294-4
Mechanical Properties	Value	Unit	Test Standard
Tensile Modulus	5300	MPa	ISO 527-1
Tensile Strength	24	MPa	ISO 527-1
Strain @ Break	0.57	%	ISO 527-1
Flexural Modulus	6200	MPa	ISO 178
Flexural Strength	43	MPa	ISO 178
Charpy Unnotched (23°C)	6.8	kJ/m ²	ISO 179-1
Charpy Notched (23°C)	1.5	kJ/m ²	ISO 179-1
Thermal Properties	Value	Unit	Test Standard
Thermal Conductivity, In-Plane	5.0	W/mK	ASTM E1461
Thermal Diffusivity, In-Plane	0.025	cm ² /sec	ASTM E1461
Specific Heat	1.3	J/g°C	ASTM E1461