COOLPOLY® D1202

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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.

Product information

Resin Identification	PP		ISO 1043
Part Marking Code	>PP<		ISO 11469

Typical mechanical properties

Tensile modulus	368000	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	2230	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	5.5	%	ISO 527-1/-2
Flexural modulus	466000	psi	ISO 178
Flexural strength	4180	psi	ISO 178
Charpy impact strength, 23°C	9.8	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23°C	0.714	ftlb/in²	ISO 179/1eA

Thermal properties

Thermal conductivity, flow	4.5	W/(m K)	ISO 22007-2
Thermal conductivity, crossflow	3.6	W/(m K)	ISO 22007-2
Thermal conductivity, through plane	1	W/(m K)	ISO 22007-2
Specific heat capacity of melt	1300	J/(kg K)	ISO 22007-4

Physical/Other properties

Density	0.0502	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	176	°F
Drying Time, Dehumidified Dryer	1 - 2	h
Melt Temperature Optimum	437	°F
Min. melt temperature	410	°F
Max. melt temperature	464	°F
Mold Temperature Optimum	104	°F
Min. mold temperature	68	°F
Max. mold temperature	149	°F
Back pressure	50.8	psi

Characteristics

Processing	Injection Molding
Special characteristics	U.V. stabilized or stable to weather, High Flow

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