CoolPoly® E3607

Polyamide 66/6 Copolymer

Celanese Corporation

Message:

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.

General Information			
UL YellowCard	E229777-101208750		
Features	Electrically Conductive Electromagnetic Shielding (EMI) Radio Frequency Shielding (RFI) Thermally Conductive		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.56	g/cm³	ISO 1183
Molding Shrinkage			ASTM D551
Flow	0.45	%	
Across Flow	0.70	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	10600	MPa	ISO 527-2
Tensile Stress (Yield)	50.0	MPa	ISO 527-2
Nominal Tensile Strain at Break	0.60	%	ISO 527-2
Flexural Modulus	10000	MPa	ISO 178
Flexural Stress	70.0	MPa	ISO 178
Thermal	**Nominal Value**	**Unit**	**Test Method**
Specific Heat	1100	J/kg/°C	ASTM E1461
Thermal Conductivity	20	W/m/K	ASTM E1461
Thermal Diffusivity	0.100	cm²/s	ASTM E1461
Flammability	**Nominal Value**		**Test Method**
Flame Rating (1.00 mm)	V-0		UL 94
Injection	**Nominal Value**	**Unit**	
Drying Temperature	104	°C	
Drying Time	12 to 24	hr	
Dew Point	-40.0	°C	
Suggested Max Moisture	< 0.050	%	
Rear Temperature	221 to 252	°C	
Middle Temperature	232 to 277	°C	

Front Temperature	238 to 277	°C
Nozzle Temperature	238 to 277	°C
Processing (Melt) Temp	232 to 282	°C
Mold Temperature	38.0 to 93.0	°C
Injection Pressure	5.20 to 13.8	MPa
Injection Rate	Moderate-Fast	
Holding Pressure	3.40 to 10.3	MPa
Back Pressure	0.500 to 3.00	MPa
Screw Speed	50 to 150	rpm
Cushion	6.30 to 12.7	mm
Screw Compression Ratio	2.5:1.0	

Recommended distributors for this material

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