

Thermx® CG033

Polycyclohexylenedimethylene Terephthalate
Celanese Corporation

Message:

Thermx® CG033 is a 30% glass fiber reinforced polycyclohexylenedimethylene terephthalate for injection molding.

General Information			
Filler / Reinforcement	Glass Fiber,30% Filler by Weight		
Features	General Purpose		
Uses	General Purpose		
RoHS Compliance	Contact Manufacturer		
Physical	Nominal Value	Unit	Test Method
Density	1.45	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	0.80	%	
Flow	0.20	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	8500	MPa	ISO 527-2/1A/1
Tensile Stress (Break)	120	MPa	ISO 527-2/1A/5
Tensile Strain (Break)	2.0	%	ISO 527-2/1A/5
Flexural Modulus (23°C)	8000	MPa	ISO 178
Flexural Stress (23°C)	180	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	8.0	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	50	kJ/m ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	270	°C	ISO 75-2/B
1.8 MPa, Unannealed	262	°C	ISO 75-2/A
Glass Transition Temperature ¹	105	°C	ISO 11357-2
Melting Temperature ²	283	°C	ISO 11357-3
CLTE			ISO 11359-2
Flow	3.2E-5	cm/cm/°C	
Transverse	8.5E-5	cm/cm/°C	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms · cm	IEC 60093
Electric Strength	33	kV/mm	IEC 60243-1
Comparative Tracking Index	560	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method

Flame Rating (1.50 mm)	HB		UL 94
Oxygen Index	29	%	ISO 4589-2
Fill Analysis	Nominal Value	Unit	Test Method
Density of Melt	1.420	g/cm ³	Internal Method
Ejection Temperature	220	°C	Internal Method
Specific Heat Capacity of Melt	1470	J/kg/°C	Internal Method
Thermal Conductivity of Melt	0.20	W/m/K	Internal Method
Injection	Nominal Value	Unit	
Drying Temperature	95.0	°C	
Drying Time	4.0 to 6.0	hr	
Processing (Melt) Temp	295 to 310	°C	
Mold Temperature	80.0 to 120	°C	
NOTE			
1.	10°C/min		
2.	10°C/min		

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