



Thermx® CGT33

Celanese Corporation - Polycyclohexylenedimethylene Terephthalate

Tuesday, November 5, 2019

General Information

Product Description

Thermx® CGT33 is a 30% glass fiber reinforced and toughened polycyclohexylenedimethylene terephthalate for injection molding.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
RoHS Compliance	• Contact Manufacturer		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.44	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	0.80	%	
Flow	0.30	%	
Water Absorption (Saturation, 73°F)	1.4	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.15	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.22E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	16000	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.8	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	1.10E+6	psi	ISO 178
Flexural Stress (73°F)	26100	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	4.8	ft-lb/in ²	ISO 179/1eA
Notched Izod Impact Strength (73°F)	4.8	ft-lb/in ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	482	°F	ISO 75-2/A
Melting Temperature ²	545	°F	ISO 11357-3
CLTE - Flow	2.7E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	5.0E-5	in/in/°F	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Electric Strength	890	V/mil	IEC 60243-1
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	HB		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	203	°F
Drying Time	4.0 to 6.0	hr
Suggested Max Moisture	0.030	%
Processing (Melt) Temp	563 to 590	°F

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Injection	Nominal Value	Unit
Mold Temperature	176 to 248	°F

Notes

¹ Typical properties: these are not to be construed as specifications.

² 10°C/min