



Thermx® CG933

Celanese Corporation - Polycyclohexylenedimethylene Terephthalate

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General Information

Product Description

Thermx® CG933 is a 30% glass fiber reinforced and flame retardant 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		
Additive	• Flame Retardant		
Features	• Flame Retardant		
RoHS Compliance	• Contact Manufacturer		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.63	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	0.80	%	
Flow	0.30	%	
Water Absorption (Saturation, 73°F)	0.90	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.15	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.57E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	16500	psi	ISO 527-2/1A/5
Tensile Strain (Break)	1.5	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	1.45E+6	psi	ISO 178
Flexural Stress (73°F)	24900	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	2.9	ft·lb/in ²	ISO 179/1eA
Charpy Unnotched Impact Strength (73°F)	14	ft·lb/in ²	ISO 179/1eU
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	119		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	518	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	482	°F	ISO 75-2/A
Melting Temperature ²	545	°F	ISO 11357-3
CLTE - Flow	3.3E-6	in/in/°F	ISO 11359-2
CLTE - Transverse	5.6E-5	in/in/°F	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Electric Strength	840	V/mil	IEC 60243-1
Comparative Tracking Index	440	V	IEC 60112

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Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.031 in		V-2	
0.06 in		V-0	

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
Mold Temperature	176 to 248	°F

Notes

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

² 10°C/min