Thermx® CG923

Tuesday, November 5, 2019

Celanese Corporation - Polycyclohexylenedimethylene Terephthalate

General Information

Product Description

Thermx® CG923 is a 20% 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, 20% 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	1.57	g/cm³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	0.90	%	
Flow	0.40	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	1.16E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	14500	psi	ISO 527-2/1A/5
Tensile Strain (Break)	1.8	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	1.04E+6	psi	ISO 178
Flexural Stress (73°F)	21000	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (73°F)	2.4	ft·lb/in²	ISO 179/1eA
Charpy Unnotched Impact Strength (73°F)	14	ft·lb/in²	ISO 179/1eU
Notched Izod Impact Strength (73°F)	2.4	ft·lb/in²	ISO 180/1A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (264 psi, Unannealed)	455	°F	ISO 75-2/A
Melting Temperature [2]	545	°F	ISO 11357-3
CLTE - Flow	8.3E-6	in/in/°F	ISO 11359-2
CLTE - Transverse	6.1E-5	in/in/°F	ISO 11359-2
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.06 in)	V-0		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
Mold Temperature	176 to 248	°F

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Notes

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

[2] 10°C/min