

Thermx® CG923

Polycyclohexylenedimethylene Terephthalate

Celanese Corporation

PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

20% glass fiber reinforced, flame retardant

Thermx® CG923 is a 20% glass fiber reinforced and flame retardant polycyclohexylenedimethylene terephthalate for injection molding.

General

Material Status	• Commercial: Active		
Literature ¹	• Technical Datasheet		
UL Yellow Card ²	• E344080-100831126		
Search for UL Yellow Card	• Celanese Corporation • Thermx®		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber		
Additive	• Flame Retardant		
Features	• Chemical Resistant	• Flame Retardant	
Forms	• Pellets		
Processing Method	• Injection Molding		
Multi-Point Data	• Isothermal Stress vs. Strain (ISO 11403)	• Secant Modulus vs. Strain (ISO 11403)	

Physical	Nominal Value Unit	Test Method
Density	1.57 g/cm ³	ISO 1183
Molding Shrinkage		ISO 294-4
Across Flow	0.90 %	
Flow	0.40 %	

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus	8000 MPa	ISO 527-1
Tensile Stress (Break)	100 MPa	ISO 527-2/5
Tensile Strain (Break)	1.8 %	ISO 527-2/5
Flexural Modulus	7200 MPa	ISO 178
Flexural Stress	145 MPa	ISO 178

Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength (23°C)	5.0 kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	30 kJ/m ²	ISO 179/1eU
Notched Izod Impact Strength (23°C)	5.0 kJ/m ²	ISO 180/1A

Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load		ISO 75-2/A
1.8 MPa, Unannealed	235 °C	
Melting Temperature ⁴	285 °C	ISO 11357-3
CLTE		ISO 11359-2
Flow	1.5E-5 cm/cm/°C	
Transverse	1.1E-4 cm/cm/°C	

Electrical	Nominal Value Unit	Test Method
Comparative Tracking Index (CTI) ⁵	PLC 2	UL 746A

Flammability	Nominal Value Unit	Test Method
Flame Rating (1.5 mm)	V-0	UL 94



Injection	Nominal Value Unit
Drying Temperature	> 95 °C
Drying Time	4.0 to 6.0 hr
Suggested Max Moisture	0.030 %
Processing (Melt) Temp	295 to 310 °C
Mold Temperature	80 to 120 °C

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

³ Typical properties: these are not to be construed as specifications.

⁴ 10°C/min

⁵ 23°C

