

THERMX® CG033

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

Note: Initial properties are from CAMPUS information published by DuPont 3/2010

Rheological properties

Moulding shrinkage range, parallel	0.2 %	ISO 294-4, 2577
Moulding shrinkage range, normal	0.8 %	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	8500 MPa	ISO 527-1/-2
Stress at break, 5mm/min	120 MPa	ISO 527-1/-2
Strain at break, 50mm/min	2 %	ISO 527-1/-2
Flexural Modulus	8000 MPa	ISO 178
Flexural Strength	180 MPa	ISO 178
Charpy impact strength, 23°C	50 kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	8 kJ/m ²	ISO 179/1eA
Izod notched impact strength, 23°C	7 kJ/m ²	ISO 180/1A
Izod impact strength, 23°C	7 kJ/m ²	ISO 180/1U

Thermal properties

Melting temperature, 10°C/min	283 °C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	105 °C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	262 °C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	270 °C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	32 E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	85 E-6/K	ISO 11359-1/-2
Thermal conductivity of melt	0.2 W/(m K)	Internal
Spec. heat capacity of melt	1470 J/(kg K)	Internal

Flammability

Burning Behav. at 1.5mm nom. thickn.	HB class	UL 94
Thickness tested	1.5 mm	UL 94
Oxygen index	29 %	ISO 4589-1/-2

Electrical properties

Volume resistivity	>1E13 Ohm.m	IEC 62631-3-1
Surface resistivity	1E15 Ohm	IEC 62631-3-2
Electric strength	33 kV/mm	IEC 60243-1
Comparative tracking index	PLC 1 PLC	UL 746A



THERMX® CG033

Other properties

Density	1450 kg/m ³	ISO 1183
Density of melt	1420 kg/m ³	Internal

Injection

Drying Temperature	95 °C	
Drying Time, Dehumidified Dryer	4 - 6 h	
Max. mould temperature	80 - 120 °C	
Ejection temperature	220 °C	Internal

Additional information

Injection molding	Melt Temperature Optimum = 300 °C
	Melt Temperature Range = 295-310 °C
	Mold Temperature Optimum = 100 °C
	Mold Temperature Range = 80-120 °C

Processing Texts

Pre-drying

Injection molding

Pre-processing:

Drying Recommended = Yes
 Drying Temperature = 95 °C
 Drying Time, Dehumidified Dryer = 4-6h
 Processing Moisture Content = <0.03 %

Processing:

Melt Temperature Optimum = 300 °C
 Melt Temperature Range = 295-310 °C
 Mold Temperature Optimum = 100 °C
 Mold Temperature Range = 80-120 °C

Injection molding

Melt Temperature Optimum = 300 °C
 Melt Temperature Range = 295-310 °C
 Mold Temperature Optimum = 100 °C
 Mold Temperature Range = 80-120 °C

Injection molding Preprocessing

Drying Recommended = Yes
 Drying Temperature = 95 °C
 Drying Time, Dehumidified Dryer = 4-6h
 Processing Moisture Content = <0.03 %



THERMX® CG033

Other Approvals

Other Approvals

OEM	Specification
Hyundai	MS941-03, Type J-2

