Celanese
The chemistry inside innovation™

THERMX® CGT33

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

Rheological properties

Moulding shrinkage range, parallel	0.3	%	ISO 294-4, 2577
Moulding shrinkage range, normal	0.8	%	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	8400	MPa	ISO 527-1/-2
Stress at break, 5mm/min	110	MPa	ISO 527-1/-2
Strain at break, 5mm/min	2.8	%	ISO 527-1/-2
Flexural Modulus	7600	MPa	ISO 178
Flexural Strength	180	MPa	ISO 178
Charpy notched impact strength, 23°C	10	kJ/m²	ISO 179/1eA
Izod notched impact strength, 23°C	10	kJ/m²	ISO 180/1A

Thermal properties

Melting temperature, 10°C/min	285	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	250	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	48	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	90	E-6/K	ISO 11359-1/-2

Flammability

Burning Behav. at 1.5mm nom. thickn.	HB	class	UL 94
Thickness tested	1.5	mm	UL 94

Electrical properties

Electric strength	35	kV/mm	IEC 60243-1
Comparative tracking index	PLC 0	PLC	UL 746A

Other properties

Humidity absorption, 2mm	0.15	%	Sim. to ISO 62
Water absorption, 2mm	1.4	%	Sim. to ISO 62
Density	1440	kg/m³	ISO 1183

Injection

Drying Temperature	≥95	°C	
Drying Time, Dehumidified Dryer	4 - 6	h	
Processing Moisture Content	0.03	%	
Melt Temperature Optimum	305	°C	Internal
Max. mould temperature	80 - 120	°C	

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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

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 %