

THERMX[®] CGT33

PCT

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

Product information

Resin Identification	PCT-GF30	ISO 1043
Part Marking Code	>PCT-GF30<	ISO 11469

Rheological properties

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

Typical mechanical properties

Tensile modulus	8400 MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	110 MPa	ISO 527-1/-2
Tensile 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/m ²	ISO 179/1eA
Izod notched impact strength, 23°C	10 kJ/m ²	ISO 180/1A
Poisson's ratio	0.34 ^[C]	

[C]: Calculated

Thermal properties

Melting temperature, 10°C/min	285 °C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	250 °C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	48 E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	90 E-6/K	ISO 11359-1/-2

Flammability

Burning Behav. at 1.5mm nom. thickn.	HB class	IEC 60695-11-10
Thickness tested	1.5 mm	IEC 60695-11-10

Electrical properties

Electric strength	35 kV/mm	IEC 60243-1
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Physical/Other properties

Humidity absorption, 2mm	0.15 %	Sim. to ISO 62
Water absorption, 2mm	1.4 %	Sim. to ISO 62
Density	1440 kg/m ³	ISO 1183

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Injection

Ejection temperature 230 °C

Characteristics

Processing	Injection Moulding
Delivery form	Pellets
Special characteristics	High impact or impact modified, Chemical resistant

Additional information

Injection molding

Preprocessing

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