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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/m²	ISO 179/1eA
Izod notched impact strength, 23°C	10	kJ/m²	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

Physical/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

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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

Revised: 2024-05-15 Source: Celanese Materials Database

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