

# THERMX<sup>®</sup> CG023

Thermx® CG023 is a 20% glass fiber reinforced polycyclohexylenedimethylene terephthalate for injection molding.

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

Product information			
Resin Identification	PCT-GF20		ISO 1043
Part Marking Code	>PCT-GF20<		ISO 11469
Rheological properties			
Melt volume-flow rate	30	cm <sup>3</sup> /10min	ISO 1133
Temperature	300	°C	
Load	2.16		
Viscosity number		cm³/g	ISO 307, 1628
Moulding shrinkage, parallel	0.3		ISO 294-4, 2577
Moulding shrinkage, normal	0.8	%	ISO 294-4, 2577
Typical mechanical properties			
Tensile modulus	6400	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	100	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.3		ISO 527-1/-2
Flexural modulus	5800		ISO 178
Flexural strength		MPa	ISO 178
Tensile creep modulus, 1h	6000		ISO 899-1
Tensile creep modulus, 1000h	4600		ISO 899-1
Charpy impact strength, 23°C		kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C		kJ/m² kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C Charpy notched impact strength, -30°C		kJ/m <sup>2</sup>	ISO 179/1eA ISO 179/1eA
Izod notched impact strength, 23°C		kJ/m <sup>2</sup>	ISO 179/18A
Poisson's ratio	0.35 <sup>[C]</sup>	K0/III	188 186/17
[C]: Calculated	0.00		
Thermal properties			
Melting temperature, 10°C/min	285	۰ <b>۲</b>	ISO 11357-1/-3
Glass transition temperature, 10°C/min	100	-	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	253		ISO 75-1/-2
Coefficient of linear thermal expansion		E-6/K	ISO 11359-1/-2
(CLTE), parallel			
Coefficient of linear thermal expansion (CLTE),	80	E-6/K	ISO 11359-1/-2
normal			
Thermal conductivity of melt		W/(m K)	ISO 22007-2
Specific heat capacity of melt	1470	J/(kg K)	ISO 22007-4



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### PCT

Flammability Burning Behav. at 1.5mm nom. thickr Thickness tested		class mm	IEC 60695-11-10 IEC 60695-11-10	
Electrical properties Volume resistivity Surface resistivity Electric strength	>1E15	Ohm.m Ohm kV/mm	IEC 62631-3-1 IEC 62631-3-2 IEC 60243-1	
Physical/Other properties Density Density of melt		kg/m³ kg/m³	ISO 1183	
Injection Ejection temperature	230	°C		
Characteristics				
Processing Delivery form Special characteristics	Injection Moulding Pellets 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				
Processing Notes	Pre-Drying			
	Injection molding Pre-processing: Drying Recommended = Yes Drying Temperature = 95 °C Drying Time, Dehumidified Dryer Processing Moisture Content = <0			
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