

DuPont™ Crastin® PBT

thermoplastic polyester resin

Crastin® T803 NC010

Crastin® T803 NC010 is a 20% glass fiber reinforced polybutylene terephthalate resin for injection molding. It has improved impact resistance and good processing characteristics.

Property	Test Method	Units	Value
Identification			
Resin Identification	ISO 1043		PBTC-GF20
Part Marking Code	ISO 11469		>PBTC-GF20<
Mechanical			
Stress at Break	ISO 527	MPa (kpsi)	92 (13.0)
Strain at Break	ISO 527	%	5
Tensile Modulus	ISO 527	MPa (kpsi)	4900 (710)
Flexural Strength	ISO 178	MPa (kpsi)	145 (21)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m ²	10
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m ²	70
Thermal			
Deflection Temperature 1.80MPa	ISO 75f	°C (°F)	180 (355)
Melting Temperature 10°C/min	ISO 11357-1/-3	°C (°F)	205 (400)
CLTE, Normal 23 - 55°C (73 - 130°F)	ISO 11359-1/-2	E-4/C (E-4/F)	1.6 (0.9)
CLTE, Parallel 23 - 55°C (73 - 130°F)	ISO 11359-1/-2	E-4/C (E-4/F)	0.35 (0.2)

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc.

ISO Mechanical properties measured at 4.0mm, ISO Electrical properties measured at 2.0mm, and all ASTM properties measured at 3.2mm.

Test temperatures are 23°C unless otherwise stated.

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Property	Test Method	Units	Value
Electrical			
Surface Resistivity	IEC 60093	ohm	>1E14
Relative Permittivity	IEC 60250		
1E6 Hz			3.6
50Hz			3.8
Volume Resistivity	IEC 60093	ohm m	>1E13
Dissipation Factor	IEC 60250	E-4	
1E6 Hz			200
50Hz			100
Electric Strength	IEC 60243-1	kV/mm (V/mil)	
1.0mm			26 (660)
Flammability			
Oxygen Index	ISO 4589-1/-2	%	19
Glow Wire Flammability Index	IEC 60695-2-12	°C	
3.0mm			750
Other			
Density	ISO 1183	kg/m ³ (g/cm ³)	1430 (1.43)
Water Absorption	ISO 62, Similar to	%	
Equilibrium 50%RH			0.15
Saturation, immersed			0.4
Molding Shrinkage	ISO 294-4	%	
Normal, 2.0mm			0.9
Parallel, 2.0mm			0.4

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Property	Test Method	Units	Value
Processing			
Melt Temperature Range		°C (°F)	240-260 (465-500)
Melt Temperature Optimum		°C (°F)	250 (480)
Mold Temperature Range		°C (°F)	30-130 (85-265)
Mold Temperature Optimum		°C (°F)	80 (175)
Drying Time, Dehumidified Dryer		h	2-4
Drying Temperature		°C (°F)	110-130 (230-265)
Processing Moisture Content		%	<0.04
Snake Flow		mm	
90MPa, 5x0.30mm			17
90MPa, 5x0.50mm			49
90MPa, 5x0.75mm			97
90MPa, 5x1.00mm			154

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