

## DuPont™ Crastin® PBT

thermoplastic polyester resin

### Crastin® T805 NC010

Crastin® T805 NC010 is a 30% glass fiber reinforced polybutylene terephthalate resin for injection molding. It has improved impact resistance and good processing characteristics.

Property	Test Method	Units	Value
<b>Identification</b>			
Resin Identification	ISO 1043		PBTC-GF30
Part Marking Code	ISO 11469		>PBTC-GF30<
<b>Mechanical</b>			
Stress at Break	ISO 527	MPa (kpsi)	112 (16.2)
Strain at Break	ISO 527	%	4
Tensile Modulus	ISO 527	MPa (kpsi)	7300 (1100)
Tensile Creep Modulus	ISO 899	MPa (kpsi)	
1h			6200 (900)
1000h			4000 (580)
Flexural Strength	ISO 178	MPa (kpsi)	175 (25.0)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m <sup>2</sup>	
-30°C (-22°F)			13
23°C (73°F)			14
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m <sup>2</sup>	
-30°C (-22°F)			90
23°C (73°F)			75

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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050423/050425

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Property	Test Method	Units	Value
<b>Thermal</b>			
Deflection Temperature	ISO 75f	°C (°F)	
0.45MPa			205 (401)
1.80MPa			185 (365)
Melting Temperature	ISO 11357-1/-3	°C (°F)	
10°C/min			205 (400)
CLTE, Normal	ISO 11359-1/-2	E-4/C (E-4/F)	
23 - 55°C (73 - 130°F)			1.2 (0.65)
CLTE, Parallel	ISO 11359-1/-2	E-4/C (E-4/F)	
23 - 55°C (73 - 130°F)			0.3 (0.15)
Thermal Conductivity	DIN 51046	W/m K (Btu in/h ft² F)	0.3 (1.2)
Vicat Softening Temperature	ISO 306	°C (°F)	
10N, 50°C/h			205 (400)
50N, 50°C/h			190 (375)
<b>Electrical</b>			
Surface Resistivity	IEC 60093	ohm	>1E14
Relative Permittivity	IEC 60250		
1E2 Hz			4.4
1E6 Hz			4
50Hz, 1.0mm			4.4
Volume Resistivity	IEC 60093	ohm m	>1E13
Dissipation Factor	IEC 60250	E-4	
1E2 Hz			95
1E6 Hz			215
50Hz, 1.0mm			95
Electric Strength	IEC 60243-1	kV/mm (V/mil)	
1.0mm			29 (735)
20s, Plate 2mm			17 (430)
Electrolytical Corrosion	IEC 60426		
Plate 4mm			A1
CTI	UL 746A	V	
3.0mm			440

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Property	Test Method	Units	Value
<b>Flammability</b>			
Flammability Classification 0.75mm	IEC 60695-11-10		HB
Flammability Classification 0.75mm	UL94		HB
Oxygen Index	ISO 4589-1/-2	%	19
Glow Wire Flammability Index 3.0mm	IEC 60695-2-1	°C	750
<b>Temperature Index</b>			
RTI, Electrical 0.75mm	UL 746B	°C	130
1.5mm			140
RTI, Impact 0.75mm	UL 746B	°C	130
RTI, Strength 0.75mm	UL 746B	°C	130
1.5mm			140
<b>Other</b>			
Density	ISO 1183	kg/m <sup>3</sup> (g/cm <sup>3</sup> )	1510 (1.51)
Ball Indentation Hardness H 358/30	ISO 2039-1	MPa (kpsi)	150 (22)
Water Absorption Equilibrium 50%RH	ISO 62, Similar to	%	0.15
Saturation, immersed			0.35
Molding Shrinkage Normal, 2.0mm	ISO 294-4	%	0.9
Parallel, 2.0mm			0.3

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# Product Information

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<b>Processing</b>			
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	
100MPa, 7 x 2mm			425
90MPa, 5x0.30mm			12
90MPa, 5x0.50mm			42
90MPa, 5x0.75mm			80
90MPa, 5x1.00mm			124

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