

DuPont™ Crastin® PBT

thermoplastic polyester resin

PRELIMINARY DATA

Crastin® FGS600F40 NC010

Crastin® FGS600F40 NC010 is an unreinforced, low viscosity polybutylene terephthalate resin for injection molding. It has been developed for consideration into applications such as parts for the food industry.

Property	Test Method	Units	Value
Identification			
Resin Identification	ISO 1043		PBT
Part Marking Code	ISO 11469		>PBT<
Mechanical			
Yield Stress	ISO 527	MPa (kpsi)	58 (8.4)
Yield Strain	ISO 527	%	6
Strain at Break	ISO 527	%	
50mm/min			>50
Nominal Strain at Break	ISO 527	%	30
Tensile Modulus	ISO 527	MPa (kpsi)	2600 (377)
Tensile Creep Modulus	ISO 899	MPa (kpsi)	
1h			2600 (377)
1000h			1800 (260)
Flexural Modulus	ISO 178	MPa (kpsi)	2400 (341)
Flexural Strength	ISO 178	MPa (kpsi)	85 (12.3)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m ²	
-30°C (-22°F)			4
23°C (73°F)			4
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m ²	
-30°C (-22°F)			NB
23°C (73°F)			NB

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.

The above data are preliminary and are subject to change as additional data are developed on subsequent lots.

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Property	Test Method	Units	Value
Thermal			
Deflection Temperature 0.45MPa	ISO 75-1/-2	°C (°F)	115 (239)
0.45MPa, Annealed			180 (356)
1.80MPa			50 (122)
1.80MPa, Annealed			60 (140)
Melting Temperature 10°C/min	ISO 11357-1/-3	°C (°F)	225 (437)
CLTE, Parallel 23 - 55°C (73 - 130°F)	ISO 11359-1/-2	E-4/C (E-4/F)	1.1 (0.61)
CLTE, Normal 23 - 55°C (73 - 130°F)	ISO 11359-1/-2	E-4/C (E-4/F)	1.2 (0.67)
Thermal Conductivity	DIN 51046	W/m K (Btu in/h ft² F)	0.25 (0.95)
Vicat Softening Temperature 10N, 50°C/h	ISO 306	°C (°F)	215 (420)
50N, 50°C/h			175 (350)
Hot Ball Pressure Test Plate 3mm	IEC 60309	°C (°F)	180 (355)
Other			
Density	ISO 1183	kg/m³ (g/cm³)	1310 (1.31)
Water Absorption Equilibrium 50%RH	ISO 62, Similar to	%	0.2
Saturation, immersed			0.4
Molding Shrinkage Normal, 2.0mm	ISO 294-4	%	1.8
Parallel, 2.0mm			1.95

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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

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