

# DuPont™ Crastin® PBT

thermoplastic polyester resin

## Crastin® SK602 NC010

Crastin® SK602 NC010 is a 15% glass fiber reinforced, lubricated polybutylene terephthalate resin for injection molding.

Property	Test Method	Units	Value
<b>Identification</b>			
Resin Identification	ISO 1043		PBT-GF15
Part Marking Code	ISO 11469		>PBT-GF15<
<b>Mechanical</b>			
Stress at Break	ISO 527	MPa (kpsi)	109 (15.8)
Strain at Break	ISO 527	%	3.5
Tensile Modulus	ISO 527	MPa (kpsi)	5800 (840)
Tensile Creep Modulus	ISO 899	MPa (kpsi)	
1h			5300 (769)
1000h			4300 (624)
Flexural Modulus	ISO 178	MPa (kpsi)	5200 (750)
Flexural Strength	ISO 178	MPa (kpsi)	160 (23.2)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m <sup>2</sup>	
-40°C (-40°F)			7
-30°C (-22°F)			7
23°C (73°F)			7
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m <sup>2</sup>	
-40°C (-40°F)			40
-30°C (-22°F)			45
23°C (73°F)			45

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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<b>Thermal</b>			
Deflection Temperature 0.45MPa	ISO 75f	°C (°F)	220 (428)
1.80MPa			200 (392)
Melting Temperature 10°C/min	ISO 11357-1/-3	°C (°F)	225 (437)
CLTE, Normal 23 - 55°C (73 - 130°F)	ISO 11359-1/-2	E-4/C (E-4/F)	1.10 (0.61)
CLTE, Parallel 23 - 55°C (73 - 130°F)	ISO 11359-1/-2	E-4/C (E-4/F)	0.50 (0.28)
Vicat Softening Temperature 10N	ISO 306	°C (°F)	221 (429)
50N			205 (401)
Hot Ball Pressure Test Plate 3mm	VDE 0470	°C	210
<b>Electrical</b>			
Surface Resistivity	IEC 60093	ohm	1E15
Relative Permittivity 1E2 Hz	IEC 60250		4.1
1E6 Hz			3.5
Volume Resistivity	IEC 60093	ohm m	>1E13
Dissipation Factor 1E2 Hz	IEC 60250	E-4	20
1E6 Hz			200
Electric Strength 1.0mm	IEC 60243-1	kV/mm (V/mil)	27 (685)
20s, Plate 2mm			17 (431)

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<b>Electrical</b>			
Electrolytical Corrosion Plate 4mm	IEC 60426		A1
CTI	IEC 60112	V	350
CTI 3.0mm	UL 746A	V	250
CTI M Plate 4mm	IEC 60112		200 M
<b>Flammability</b>			
Flammability Classification 1.5mm	IEC 60695-11-10		HB
Flammability Classification 1.5mm	UL94		HB
Oxygen Index	ISO 4589-1/-2	%	19
Glow Wire Flammability Index 3.0mm	IEC 60695-2-1	°C	750
High Amperage Arc Ignition Resistance 1.5mm	UL 746A	arcs	60
3.0mm			60
6.0mm			60
Hot Wire Ignition 1.5mm	UL 746A	s	15
3.0mm			15
6.0mm			60
<b>Temperature Index</b>			
RTI, Electrical 0.75mm	UL 746B	°C	130
RTI, Impact 0.75mm	UL 746B	°C	115
RTI, Strength 0.75mm	UL 746B	°C	120

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<b>Other</b>			
Density	ISO 1183	kg/m <sup>3</sup> (g/cm <sup>3</sup> )	1410 (1.41)
Ball Indentation Hardness	ISO 2039-1	MPa (kpsi)	
H 961/30			175 (25)
Water Absorption	ISO 62, Similar to	%	
Equilibrium 50%RH			0.17
Saturation, immersed			0.42
Molding Shrinkage	ISO 294-4	%	
Normal, 2.0mm			1.1
Parallel, 2.0mm			0.4
<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			500
90MPa, 5x0.30mm			12
90MPa, 5x0.50mm			39
90MPa, 5x0.75mm			82
90MPa, 5x1.00mm			132

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