

DuPont™ Crastin® PBT

thermoplastic polyester resin

Crastin® SK605 NC010

Crastin® SK605 NC010 is a 30% glass fiber reinforced, lubricated polybutylene terephthalate resin for injection molding.

Property	Test Method	Units	Value
Identification			
Resin Identification	ISO 1043		PBT-GF30
Part Marking Code	ISO 11469		>PBT-GF30<
Mechanical			
Stress at Break	ISO 527	MPa (kpsi)	140 (20.3)
Strain at Break	ISO 527	%	2.7
Tensile Modulus	ISO 527	MPa (kpsi)	10000 (1450)
Tensile Creep Modulus	ISO 899	MPa (kpsi)	
1h			9000 (1305)
1000h			6600 (957)
Flexural Modulus	ISO 178	MPa (kpsi)	9000 (1300)
Flexural Strength	ISO 178	MPa (kpsi)	200 (29.0)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m ²	
-40°C (-40°F)			10
-30°C (-22°F)			11
23°C (73°F)			11
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m ²	
-40°C (-40°F)			75
-30°C (-22°F)			75
23°C (73°F)			70

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
Thermal			
Deflection Temperature 0.45MPa	ISO 75f	°C (°F)	220 (428)
1.80MPa			205 (401)
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)	0.90 (0.50)
CLTE, Parallel 23 - 55°C (73 - 130°F)	ISO 11359-1/-2	E-4/C (E-4/F)	0.30 (0.20)
Vicat Softening Temperature 10N	ISO 306	°C (°F)	221 (429)
50N			213 (415)
Hot Ball Pressure Test Plate 3mm	VDE 0470	°C	210
Electrical			
Surface Resistivity	IEC 60093	ohm	>1E15
Relative Permittivity 1E2 Hz	IEC 60250		4.4
1E6 Hz			3.8
Volume Resistivity	IEC 60093	ohm m	>1E13
Dissipation Factor 1E2 Hz	IEC 60250	E-4	25
1E6 Hz			180
Electric Strength 1.0mm	IEC 60243-1	kV/mm (V/mil)	31 (787)
20s, Plate 2mm			17 (431)

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Electrical			
Electrolytical Corrosion Plate 4mm	IEC 60426		A1
CTI	IEC 60112	V	450
CTI 3.0mm	UL 746A	V	400
CTI M Plate 4mm	IEC 60112		200
Flammability			
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 0.75mm	IEC 60695-2-12	°C	725
1.5mm			725
3.0mm			825
Glow Wire Ignition Temperature 0.75mm	IEC 60695-2-13	°C	750
1.5mm			750
3.0mm			800
High Amperage Arc Ignition Resistance 1.5mm	UL 746A	arcs	60
3.0mm			120
6.0mm			120
Hot Wire Ignition 1.5mm	UL 746A	s	15
3.0mm			30
6.0mm			120

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Property	Test Method	Units	Value
Temperature Index			
RTI, Electrical 0.75mm	UL 746B	°C	130
RTI, Impact 0.75mm	UL 746B	°C	130
RTI, Strength 0.75mm	UL 746B	°C	130
Other			
Density	ISO 1183	kg/m ³ (g/cm ³)	1530 (1.53)
Ball Indentation Hardness H 961/30	ISO 2039-1	MPa (kpsi)	200 (29)
Water Absorption Equilibrium 50%RH Saturation, immersed	ISO 62, Similar to	%	0.13 0.37
Molding Shrinkage Normal, 2.0mm Parallel, 2.0mm	ISO 294-4	%	1.1 0.3
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	
100MPa, 7 x 2mm			375
90MPa, 5x0.30mm			9
90MPa, 5x0.50mm			37
90MPa, 5x0.75mm			75
90MPa, 5x1.00mm			119

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