



Crastin® PBT

thermoplastic polyester resin

Crastin® S650FR NC010

Crastin® S650FR is an unreinforced, flame retardant polybutylene terephthalate for injection molding. It has a UL94 V-0 rating @ 0.75mm.

Property	Test Method	Units	Value
Mechanical			
Yield Stress	ISO 527-1/-2	MPa	65
Yield Strain	ISO 527-1/-2	%	3.7
Strain at Break	ISO 527-1/-2	%	
5mm/min.			13
50mm/min			9
Tensile Modulus	ISO 527-1/-2	MPa	2900
Tensile Creep Modulus	ISO 899	MPa	
1h			2500
1000h			1800
Flexural Strength	ISO 178	MPa	100
Ball Indention Hardness	ISO 2039-1	MPa	
H 358/30			150
Notched Izod Impact	ISO 180/1A	kJ/m2	
-30°C			4
23°C			4
Unnotched Izod Impact	ISO 180/1U	kJ/m2	
-30°C			42
23°C			45
Notched Charpy Impact	ISO 179/1eA	kJ/m2	
-30°C			3.3
23°C			4
Unnotched Charpy Impact	ISO 179/1eU	kJ/m2	
-30°C			67
23°C			88

Contact DuPont for MSDS, general guides and/or additional information about ventilation, handling, purging, drying, etc.

Mechanical properties measured at 23°C (73°F) unless otherwise stated.

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031002/991217

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Property	Test Method	Units	Value
Thermal			
Deflection Temperature 0.45MPa	ISO 75-1/-2	°C	160
1.80MPa			65
Melting Temperature	ISO 3146C	°C	225
Thermal Conductivity	DIN 51046	W/m K	0.26
Vicat Softening Temperature	ISO 306	°C	
10N			215
50N			177
Hot Ball Pressure Test	VDE 0470	°C	
Plate 3mm			190
Electrical			
Surface Resistivity	IEC 60093	ohm	
1mm			1E15
Relative Permittivity	IEC 60250		
100 Hz, 1mm			3.5
1 MHz, 1mm			3.5
Volume Resistivity	IEC 60093	ohm cm	
1mm			>1E15
Dissipation Factor	IEC 60250	E-4	
100 Hz, 1mm			17
1 MHz, 1mm			180
Electric Strength	IEC 60243-1	kV/mm	
1mm			25
20s, Plate 2mm			15
Electrolytical Corrosion	IEC 60426		
Plate 4mm			A1
CTI	IEC 60112	V	
1mm			225
CTI M	IEC 60112		
Plate 4mm			175 M
Flammability			
Rating @ 1.5mm Nominal	UL94		V-0
Rating @ Thickness	UL94		V-0
Thickness Tested	UL94	mm	0.75
Limited Oxygen Index	ISO 4589	%	30
Glow Wire	IEC 60695-2-1	°C	
Plate 3mm			960

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Property	Test Method	Units	Value
Temperature Index			
RTI, Electrical 3.0mm	UL 746B	°C	130
RTI, Mechanical with Impact 3.0mm	UL 746B	°C	130
RTI, Mechanical without Impact 3.0mm	UL 746B	°C	130
Thermal			
Temperature Index, Tensile Strength 20000h	IEC 60216	°C	130
5000h			145
Other			
Density	ISO 1183	kg/m3	1470
Humidity Absorption Equilibrium 50%RH	ISO 62, Similar to	%	0.15
Water Absorption Saturation, immersed	ISO 62, Similar to	%	0.39
Processing			
Melt Temperature Range		°C	240-260
Melt Temperature Optimum		°C	250
Drying Time, Dehumidified Dryer		h	2-4
Drying Temperature		°C	110-130
Processing Moisture Content		%	<0.04
Snake Flow		mm	
90MPa, 5x0.30mm			7
90MPa, 5x0.50mm			28
90MPa, 5x0.75mm			62
90MPa, 5x1.00mm			99
100MPa, 7 x 2mm			360

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