

Crastin® SO653 NC010

THERMOPLASTIC POLYESTER RESIN

DuPont Performance Polymers

Message:

20% Glass Bead Filled Polybutylene Terephthalate with Low Warpage Characteristics

General Information			
UL YellowCard	E41938-257836		
Filler / Reinforcement	Glass Bead,20% Filler by Weight		
Additive	Mold Release		
Agency Ratings	UL Unspecified Rating		
Forms	Pellets		
Processing Method	Injection Molding		
Multi-Point Data	Creep Modulus vs. Time (ISO 11403-1)		
	Isochronous Stress vs. Strain (ISO 11403-1)		
	Shear Modulus vs. Temperature (ISO 11403-1)		
	Shear Stress vs. Shear Rate (ISO 11403-1)		
	Viscosity vs. Shear Rate (ISO 11403-2)		
Part Marking Code (ISO 11469)	>PBT-GB20<		
Resin ID (ISO 1043)	PBT-GB20		
Physical	Nominal Value	Unit	Test Method
Density	1.45	g/cm³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	1.6	%	
Flow	1.8	%	
Water Absorption			ISO 62
23°C, 24 hr, 2.00 mm	0.35	%	
Equilibrium, 23°C, 2.00 mm, 50% RH	0.20	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	3500	MPa	ISO 527-2
Tensile Stress (Break)	47.0	MPa	ISO 527-2
Tensile Strain (Break)	10	%	ISO 527-2
Tensile Creep Modulus			ISO 899-1
1 hr	3500	MPa	
1000 hr	2400	MPa	
Flexural Stress	90.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	3.5	kJ/m²	

23°C	3.5	kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	50	kJ/m ²	
23°C	40	kJ/m ²	
Notched Izod Impact Strength			ISO 180/1A
-30°C	4.0	kJ/m ²	
23°C	3.5	kJ/m ²	
Unnotched Izod Impact Strength			ISO 180/1U
-30°C	34	kJ/m ²	
23°C	37	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	165	°C	ISO 75-2/B
1.8 MPa, Unannealed	65.0	°C	ISO 75-2/A
Vicat Softening Temperature	195	°C	ISO 306/B50
Melting Temperature ¹	225	°C	ISO 11357-3
CLTE			ISO 11359-2
Flow	1.1E-4	cm/cm/°C	
Transverse	1.1E-4	cm/cm/°C	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Electric Strength	25	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
100 Hz	4.00		
1 MHz	3.70		
Dissipation Factor			IEC 60250
100 Hz	9.0E-3		
1 MHz	0.016		
Comparative Tracking Index	250	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Burning Rate ² (1.00 mm)	24	mm/min	ISO 3795
Flammability Classification			IEC 60695-11-10, -20
0.800 mm	HB		
1.50 mm	HB		
Oxygen Index	22	%	ISO 4589-2
Fill Analysis	Nominal Value	Unit	
Melt Density	1.25	g/cm ³	
Specific Heat Capacity of Melt	1850	J/kg/°C	
Thermal Conductivity of Melt	0.25	W/m/K	
NOTE			
1.	10°C/min		
2.	SE/B		

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