Crastin® SK645FR NC010

THERMOPLASTIC POLYESTER RESIN

DuPont Performance Polymers

Message:

30% Glass Reinforced, Flame Retardant, Polybutylene Terephthalate

General Information		
UL YellowCard	E41938-257827	E41938-257828
Filler / Reinforcement	Glass Fiber,30% Filler by Weight	
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) Isothermal Stress vs. Strain (ISO 11403-1) Secant Modulus vs. Strain (ISO 11403-1) Shear Stress vs. Shear Rate (ISO 11403-1) Specific Volume vs Temperature (ISO 11403-2) Tensile Modulus vs. Temperature (ISO 11403-1) Viscosity vs. Shear Rate (ISO 11403-2)	
Part Marking Code (ISO 11469)	>PBT-GF30FR(17)<	
Resin ID (ISO 1043)	PBT-GF30FR(17)	

Physical	Nominal Value	Unit	Test Method
Density	1.71	g/cm³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow [1]	1.5	%	
Across Flow	1.2	%	
Flow	0.30	%	
Flow [2]	0.50	%	
Water Absorption			ISO 62
23°C, 24 hr, 2.00 mm	0.30	%	
Equilibrium, 23°C, 2.00 mm, 50% RH	0.10	%	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	11200	MPa	ISO 527-2
Tensile Stress (Break)	125	MPa	ISO 527-2
Tensile Strain (Break)	2.4	%	ISO 527-2
Tensile Creep Modulus			ISO 899-1
1 hr	11000	MPa	
1000 hr	8000	MPa	

Flexural Stress	215	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	9.4	kJ/m²	
23°C	9.1	kJ/m²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	57	kJ/m²	
23°C	53	kJ/m²	
Notched Izod Impact Strength			ISO 180/1A
-30°C	8.0	kJ/m²	
23°C	9.0	kJ/m²	
Unnotched Izod Impact Strength			ISO 180/1U
-30°C	40	kJ/m²	
23°C	40	kJ/m²	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
0.45 MPa, Unannealed	220	°C	ISO 75-2/B
1.8 MPa, Unannealed	210	°C	ISO 75-2/A
Vicat Softening Temperature	212	°C	ISO 306/B50
Melting Temperature [3]	225	°C	ISO 11357-3
CLTE			ISO 11359-2
Flow	3.0E-5	cm/cm/°C	
Transverse	9.0E-5	cm/cm/°C	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Electric Strength	28	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
100 Hz	4.50		
1 MHz	3.80		
Dissipation Factor			IEC 60250
100 Hz	3.0E-3		
1 MHz	0.016		
Comparative Tracking Index	250	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flammability Classification			IEC 60695-11-10, -20
0.750 mm	V-0		
1.50 mm	V-0		
Oxygen Index	31	%	ISO 4589-2
Fill Analysis	**Nominal Value**	**Unit**	
Melt Density	1.49	g/cm³	
Specific Heat Capacity of Melt	1600	J/kg/°C	

Thermal Conductivity of Melt	0.26	W/m/K

NOTE	
1.	Annealed
2.	Annealed
3.	10°C/min

Recommended distributors for this material

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