

Crastin® FGS600F40 NC010

THERMOPLASTIC POLYESTER RESIN

DuPont Performance Polymers

Message:

Unreinforced Low Viscosity Polybutylene Terephthalate Developed for Food Contact Applications

General Information			
UL YellowCard	E41938-100988420		
Forms	Pellets		
Processing Method	Injection Molding		
Part Marking Code (ISO 11469)	>PBT<		
Resin ID (ISO 1043)	PBT		
Physical	Nominal Value	Unit	Test Method
Density	1.31	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	33	g/10 min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.8	%	
Flow	1.9	%	
Water Absorption			ISO 62
23°C, 24 hr, 2.00 mm	0.40	%	
Equilibrium, 23°C, 2.00 mm, 50% RH	0.20	%	
Viscosity Number	120	cm ³ /g	ISO 307
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2600	MPa	ISO 527-2
Tensile Stress (Yield)	58.0	MPa	ISO 527-2
Tensile Strain (Yield)	6.0	%	ISO 527-2
Nominal Tensile Strain at Break	30	%	ISO 527-2
Tensile Creep Modulus			ISO 899-1
1 hr	2600	MPa	
1000 hr	1800	MPa	
Flexural Modulus	2400	MPa	ISO 178
Flexural Stress	85.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	4.0	kJ/m ²	
23°C	4.0	kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	No Break		
23°C	No Break		

Notched Izod Impact Strength (23°C)	4.0	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	115	°C	ISO 75-2/B
0.45 MPa, Annealed	180	°C	ISO 75-2/B
1.8 MPa, Unannealed	50.0	°C	ISO 75-2/A
1.8 MPa, Annealed	60.0	°C	ISO 75-2/A
Glass Transition Temperature ¹	55.0	°C	ISO 11357-2
Vicat Softening Temperature	175	°C	ISO 306/B50
Melting Temperature ²	225	°C	ISO 11357-3
CLTE			ISO 11359-2
Flow	1.1E-4	cm/cm/°C	
Transverse	1.2E-4	cm/cm/°C	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+12	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Electric Strength	26	kV/mm	IEC 60243-1
Dissipation Factor			IEC 60250
100 Hz	2.0E-3		
1 MHz	0.020		
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
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	1.11	g/cm ³	
Specific Heat Capacity of Melt	2110	J/kg/°C	
Thermal Conductivity of Melt	0.21	W/m/K	
NOTE			
1.	10°C/min		
2.	10°C/min		

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