Mitsubishi Engineering-Plastics Corp.

NOVADURAN™ 5810GN2-30

Mitsubishi Engineering-Plastics Corp - Polybutylene Terephthalate + PS

General Information

Product Description			
GF-reinforced / Flame Retardant, Low warpage, Low density, GF 30%			
General			
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Features	• Flame Retardant	• Low Density	• Low Warpage
Uses	• Automotive Applications • Automotive Electronics	• Electrical/Electronic Applications • General Purpose	

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.58	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/5.0 kg)	22	cm³/10min	ISO 1133
Molding Shrinkage			Internal Method
Across Flow : 2.00 mm	0.62	%	
Flow : 2.00 mm	0.29	%	
Water Absorption (Saturation, 23°C)	0.070	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	11500	MPa	ISO 527-1/1
Tensile Stress (Break)	122	MPa	ISO 527-2/5
Tensile Strain (Break)	2.0	%	ISO 527-2/5
Flexural Modulus [2]	10000	MPa	ISO 178
Flexural Stress [2]	180	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (23°C)	10	kJ/m²	ISO 179
Charpy Unnotched Impact Strength (23°C)	60	kJ/m²	ISO 179
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
0.45 MPa, Annealed	205	°C	ISO 75-2/B
1.8 MPa, Annealed	170	°C	ISO 75-2/A
Melting Temperature	224	°C	ISO 11357-3
RTI Elec (0.75 mm)	75.0	°C	UL 746B
RTI Imp (0.75 mm)	75.0	°C	UL 746B
RTI Str (0.75 mm)	75.0	°C	UL 746B
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+15	ohms	IEC 60093
Volume Resistivity	1.0E+16	ohms·cm	IEC 60093
Electric Strength (2.00 mm)	20	kV/mm	IEC 60243-1
Dielectric Constant (1 MHz)	3.90		IEC 60250
Dissipation Factor (1 MHz)	0.015		IEC 60250

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Electrical	Nominal Value	Unit	Test Method
Comparative Tracking Index (CTI)	PLC 3		UL 746A
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.75 mm)	V-0		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature - Hot Air Dryer	120	°C
Drying Time - Hot Air Dryer	5.0 to 8.0	hr
Rear Temperature	250 to 270	°C
Middle Temperature	250 to 270	°C
Front Temperature	250 to 270	°C
Nozzle Temperature	270	°C
Mold Temperature	60 to 100	°C
Injection Pressure	20.0 to 150	MPa
Injection Rate	Moderate-Fast	
Screw Speed	80 to 150	rpm