

General Information

Product Description

GF-reinforced / Low Gas emission, Flame Retardant, Electrical properties, GF 20%

General

Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight		
Features	• Flame Retardant	• Low to No Outgassing	• Tracking Resistant
Uses	• Automotive Applications • Automotive Electronics	• Electrical/Electronic Applications • General Purpose	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.62	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/5.0 kg)	22	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal Method
Across Flow : 2.00 mm	1.5	%	
Flow : 2.00 mm	0.70	%	
Water Absorption (Saturation, 23°C)	0.070	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	8400	MPa	ISO 527-2/1
Tensile Stress (Break)	116	MPa	ISO 527-2/5
Tensile Strain (Break)	3.0	%	ISO 527-2/5
Flexural Modulus ²	7900	MPa	ISO 178
Flexural Stress ²	186	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	8.0	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	40	kJ/m ²	ISO 179
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Annealed	216	°C	ISO 75-2/B
1.8 MPa, Annealed	195	°C	ISO 75-2/A
Melting Temperature	224	°C	ISO 11357-3
CLTE			ISO 11359-2
Flow : -30 to 35°C	3.0E-5	cm/cm/°C	
Flow : -30 to 120°C	3.0E-5	cm/cm/°C	
Flow : 35 to 120°C	3.0E-5	cm/cm/°C	
Transverse : -30 to 35°C	8.0E-5	cm/cm/°C	
Transverse : -30 to 120°C	1.2E-4	cm/cm/°C	
Transverse : 35 to 120°C	1.5E-4	cm/cm/°C	
RTI Elec (0.75 mm)	130	°C	UL 746
RTI Imp (0.75 mm)	130	°C	UL 746

NOVADURAN™ 5010GN6-20M8X

Mitsubishi Engineering-Plastics Corp - Polybutylene Terephthalate

Thermal	Nominal Value	Unit	Test Method
RTI Str (0.75 mm)	140	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	2.0E+16	ohms	IEC 60093
Volume Resistivity	1.0E+17	ohms·cm	IEC 60093
Dielectric Constant (1 MHz)	3.70		IEC 60250
Dissipation Factor (1 MHz)	0.017		IEC 60250
Comparative Tracking Index (CTI)	PLC 2		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.30 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	

Notes

¹ Typical properties: these are not to be construed as specifications.

² 2.0 mm/min

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