

NOVADURAN™ 5010GPN33X

Mitsubishi Engineering-Plastics Corp - Polybutylene Terephthalate

General Information

Product Description

GF+Filler-reinforced(33%) / V-0(0.3mm) Tracking resistant (Highly improved)

General

Filler / Reinforcement	• Glass Milled\Glass Fiber, 33% Filler by Weight	
Features	• Flame Retardant	• Tracking Resistant
Uses	• Automotive Applications	• Electrical/Electronic Applications
	• Automotive Electronics	• General Purpose

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.68	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/5.0 kg)	6.0	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal Method
Across Flow : 2.00 mm	1.0	%	
Flow : 2.00 mm	0.60	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	10300	MPa	ISO 527-1/1
Tensile Stress (Break)	79.0	MPa	ISO 527-2/5
Tensile Strain (Break)	2.0	%	ISO 527-2/5
Flexural Modulus	9190	MPa	ISO 178
Flexural Stress	118	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	6.0	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	18	kJ/m ²	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	167	°C	ISO 75-2/A
Melting Temperature	224	°C	ISO 11357-3
RTI Elec (0.30 mm)	140	°C	UL 746B
RTI Imp (0.30 mm)	130	°C	UL 746B
RTI Str (0.30 mm)	130	°C	UL 746B
Electrical	Nominal Value	Unit	Test Method
Comparative Tracking Index (CTI)	PLC 0		UL 746A
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.30 mm)	V-0		UL 94

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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.

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