

NOVADURAN™ 5010GN1-30 X4

Mitsubishi Engineering-Plastics Corp - Polybutylene Terephthalate

General Information

Product Description

GF-reinforced / Hydrolysis Resistant, Flame Retardant, GF 30%

General

Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight	
Features	• Flame Retardant	• Hydrolysis Resistant
Uses	• Automotive Applications • Automotive Electronics	• Electrical/Electronic Applications • General Purpose

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.65	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/5.0 kg)	30	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal Method
Across Flow : 2.00 mm	1.1	%	
Flow : 2.00 mm	0.30	%	
Water Absorption (Saturation, 23°C)	0.070	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Break)	140	MPa	ISO 527-2/5
Tensile Strain (Break)	2.0	%	ISO 527-2/5
Flexural Modulus ²	10500	MPa	ISO 178
Flexural Stress ²	210	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	8.3	kJ/m ²	ISO 179
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Annealed	220	°C	ISO 75-2/B
1.8 MPa, Annealed	205	°C	ISO 75-2/A
Melting Temperature	224	°C	ISO 11357-3
RTI Elec (0.71 mm)	130	°C	UL 746B
RTI Imp (0.71 mm)	120	°C	UL 746B
RTI Str (0.71 mm)	130	°C	UL 746B
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	6.0E+15	ohms	IEC 60093
Volume Resistivity	3.0E+16	ohms·cm	IEC 60093
Electric Strength (1.00 mm)	24	kV/mm	IEC 60243-1
Dielectric Constant (1 MHz)	3.90		IEC 60250
Dissipation Factor (1 MHz)	0.014		IEC 60250
Comparative Tracking Index (CTI)	PLC 3		UL 746A



NOVADURAN™ 5010GN1-30 X4

Mitsubishi Engineering-Plastics Corp - Polybutylene Terephthalate

Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.71 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	

