

NOVADURAN™ TGN515U

Mitsubishi Engineering-Plastics Corp - Polybutylene Terephthalate

General Information

Product Description

GF+Filler-reinforced / V-0 / Thermally Conductive, GF+Filler 45%

General

Filler / Reinforcement	• Glass Milled\Glass Fiber, 45% Filler by Weight	
Features	• Flame Retardant	• Thermally Conductive
Uses	• Automotive Applications	• Electrical/Electronic Applications
	• Automotive Electronics	• General Purpose

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.91	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/5.0 kg)	20	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal Method
Across Flow : 2.00 mm	0.50	%	
Flow : 2.00 mm	0.40	%	
Water Absorption (Saturation, 23°C)	0.10	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	14000	MPa	ISO 527-1/1
Tensile Stress (Break)	75.0	MPa	ISO 527-2/5
Tensile Strain (Break)	1.0	%	ISO 527-2/5
Flexural Modulus ²	14000	MPa	ISO 178
Flexural Stress ²	125	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	5.0	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	210	°C	ISO 75-2/A
Melting Temperature	212	°C	ISO 11357-3
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+16	ohms	IEC 60093
Volume Resistivity	1.0E+17	ohms·cm	IEC 60093
Comparative Tracking Index (CTI)	PLC 1		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



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Injection	Nominal Value	Unit
Drying Time - Hot Air Dryer	5.0 to 8.0	hr
Rear Temperature	250	°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

