

Iuplace™ GN20

Mitsubishi Engineering-Plastics Corp - Polyphenylene Ether + PS

General Information			
Product Description			
GF-reinforced / V-0; GF 20%			
General			
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight		
Features	• Flame Retardant		
Uses	• Automotive Applications • Automotive Electronics	• Electrical/Electronic Applications • General Purpose	
ASTM & ISO Properties ¹			
Physical	Nominal Value	Unit	Test Method
Density	1.24	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (300°C/2.16 kg)	5.0	cm³/10min	ISO 1133
Molding Shrinkage			Internal Method
Across Flow : 3.20 mm	0.20 to 0.40	%	
Flow : 3.20 mm	0.10 to 0.30	%	
Water Absorption (Saturation, 23°C)	0.060	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	6700	MPa	ISO 527-1/1
Tensile Stress (Break)	99.0	MPa	ISO 527-2/5
Tensile Strain (Break)	2.5	%	ISO 527-2/5
Flexural Modulus ²	6200	MPa	ISO 178
Flexural Stress ²	160	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	7.0	kJ/m²	ISO 179
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	135	°C	ISO 75-2/B
1.8 MPa, Unannealed	130	°C	ISO 75-2/A
CLTE			ISO 11359-2
Flow	3.0E-5	cm/cm/°C	
Transverse	6.8E-5	cm/cm/°C	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	2.0E+15	ohms	IEC 60093
Volume Resistivity	3.0E+16	ohms·cm	IEC 60093
Electric Strength			IEC 60243-1
1.00 mm	25	kV/mm	
3.00 mm	17	kV/mm	

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Electrical	Nominal Value	Unit	Test Method
Dielectric Constant			IEC 60250
100 Hz	3.40		
1 MHz	3.30		
Dissipation Factor			IEC 60250
100 Hz	4.5E-3		
1 MHz	5.5E-3		
Comparative Tracking Index	225	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.75 mm	V-1		
1.5 mm	V-0		
2.0 mm	5VA		

Processing Information

Injection	Nominal Value	Unit
Drying Temperature - Hot Air Dryer	100 to 120	°C
Drying Time - Hot Air Dryer	2.0 to 4.0	hr
Rear Temperature	260 to 290	°C
Middle Temperature	280 to 310	°C
Front Temperature	280 to 310	°C
Nozzle Temperature	270 to 310	°C
Mold Temperature	90 to 125	°C
Injection Pressure	20.0 to 150	MPa
Injection Rate	Moderate	
Screw Speed	60 to 150	rpm

Notes

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

² 2.0 mm/min

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