

Reny™ NXG5050

Mitsubishi Engineering-Plastics Corp - Polyamide MXD6

General Information				
Product Description				
GF-reinforced; Rigidity, High; Impact Resistance, High				
General				
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight			
Features	• Good Impact Resistance	• High Impact Resistance	• High Rigidity	
Uses	• Automotive Applications • Automotive Electronics	• Electrical/Electronic Applications • General Purpose		
ASTM & ISO Properties ¹				
Physical	Dry	Conditioned	Unit	Test Method
Density	1.62	--	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR)				ISO 1133
275°C/2.16 kg	4.5	--	g/10 min	
Melt Volume-Flow Rate (MVR)				ISO 1133
275°C/2.16 kg	3.7	--	cm³/10min	
Molding Shrinkage ²				Internal Method
Across Flow : 130°C, 2.00 mm	0.58	--	%	
Flow : 130°C, 2.00 mm	0.24	--	%	
Water Absorption				Internal Method
24 hr, 23°C	0.17	--	%	
Equilibrium, 23°C, 50% RH	0.90	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	18800	17400	MPa	ISO 527-1/1
Tensile Stress (Break)	205	191	MPa	ISO 527-2/5
Tensile Strain (Break)	1.5	1.7	%	ISO 527-2/5
Flexural Modulus ³	16800	16400	MPa	ISO 178
Flexural Stress ³	338	304	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
23°C	9.6	9.6	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179
23°C	68	58	kJ/m²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				
0.45 MPa, Unannealed	235	231	°C	ISO 75-2/B
1.8 MPa, Unannealed	221	216	°C	ISO 75-2/A
CLTE				ISO 11359-2
Flow	1.0E-5	--	cm/cm/°C	
Transverse	4.0E-5	--	cm/cm/°C	

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Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+15	2.0E+14	ohms	IEC 60093
Volume Resistivity	1.0E+16	4.0E+14	ohms·cm	IEC 60093
Electric Strength				IEC 60243-1
1.00 mm	26	23	kV/mm	
2.00 mm	21	18	kV/mm	
Dielectric Constant				IEC 60250
1 MHz	--	5.00		
100 MHz	--	5.00		
Dissipation Factor				IEC 60250
1 MHz	--	0.013		
100 MHz	--	0.018		
Comparative Tracking Index	200	250	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (1.6 mm)	HB	--		UL 94

Additional Information

Conditioned Conditioned to 50% RH

Processing Information

Injection	Dry	Unit
Drying Temperature		
Hot Air Dryer, A	120	°C
Hot Air Dryer, B	80	°C
Drying Time		
Hot Air Dryer, A	> 3.0	hr
Hot Air Dryer, B	> 12	hr
Rear Temperature	265	°C
Middle Temperature	270	°C
Front Temperature	275	°C
Nozzle Temperature	275	°C
Mold Temperature	120 to 140	°C
Injection Pressure	20.0 to 150	MPa
Injection Rate	Moderate-Fast	
Screw Speed	60 to 150	rpm

Notes

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

² 100-mm square

³ 2.0 mm/min

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