

Reny™ NXG5945S

Mitsubishi Engineering-Plastics Corp - High Performance Polyamide

General Information				
Product Description				
GF-reinforced; Rigidity, High; Impact Resistance, High				
General				
Filler / Reinforcement	• Glass Fiber, 45% 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	1.52	--	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR)				ISO 1133
280°C/5.0 kg	13	--	g/10 min	
Melt Volume-Flow Rate (MVR)				ISO 1133
280°C/5.0 kg	8.5	--	cm³/10min	
Molding Shrinkage ²				Internal Method
Across Flow : 130°C, 2.00 mm	0.53	--	%	
Flow : 130°C, 2.00 mm	0.24	--	%	
Water Absorption				Internal Method
Equilibrium, 23°C, 50% RH	0.73	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	16000	15400	MPa	ISO 527-1/1
Tensile Stress (Break)	208	202	MPa	ISO 527-2/5
Tensile Strain (Break)	2.0	2.2	%	ISO 527-2/5
Flexural Modulus ³	14300	14000	MPa	ISO 178
Flexural Stress ³	349	315	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
23°C	15	14	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179
23°C	90	77	kJ/m²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/A
1.8 MPa, Unannealed	232	--	°C	
CLTE				ISO 11359-2
Flow	1.1E-5	--	cm/cm/°C	
Transverse	5.6E-5	--	cm/cm/°C	

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Electrical	Dry	Conditioned	Unit	Test Method
Dielectric Constant				IEC 60250
1 MHz	4.10	4.20		
100 MHz	4.20	4.60		
Dissipation Factor				IEC 60250
1 MHz	7.0E-3	0.012		
100 MHz	6.0E-3	0.020		
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	270	°C
Middle Temperature	275	°C
Front Temperature	280	°C
Nozzle Temperature	280	°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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