

Reny™ PG-1050A

Mitsubishi Engineering-Plastics Corp - Polyamide MXD6

General Information				
Product Description				
GF-reinforced; Rigidity, High; Impact Resistance, High; HB equivalent per in-house testing				
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	1.57	--	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR)				ISO 1133
275°C/2.16 kg	5.5	--	g/10 min	
Melt Volume-Flow Rate (MVR)				ISO 1133
275°C/2.16 kg	2.8	--	cm³/10min	
Molding Shrinkage ²				Internal Method
Across Flow : 130°C, 2.00 mm	0.66	--	%	
Flow : 130°C, 2.00 mm	0.28	--	%	
Water Absorption				Internal Method
24 hr, 23°C	0.060	--	%	
Equilibrium, 23°C, 50% RH	0.80	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	19100	18700	MPa	ISO 527-1/1
Tensile Stress (Break)	215	205	MPa	ISO 527-2/5
Tensile Strain (Break)	1.7	2.0	%	ISO 527-2/5
Flexural Modulus ³	17400	17100	MPa	ISO 178
Flexural Stress ³	363	326	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
23°C	17	18	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179
23°C	59	55	kJ/m²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				
0.45 MPa, Unannealed	236	233	°C	ISO 75-2/B
1.8 MPa, Unannealed	224	220	°C	ISO 75-2/A
CLTE				ISO 11359-2
Flow	1.0E-5	--	cm/cm/°C	
Transverse	5.0E-5	--	cm/cm/°C	

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Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	6.0E+16	1.0E+14	ohms	IEC 60093
Volume Resistivity	2.0E+16	8.0E+14	ohms·cm	IEC 60093
Electric Strength				IEC 60243-1
1.00 mm	29	28	kV/mm	
2.00 mm	23	21	kV/mm	
Dielectric Constant				IEC 60250
1 MHz	--	4.00		
100 MHz	--	5.00		
Dissipation Factor				IEC 60250
1 MHz	--	0.012		
100 MHz	--	0.026		
Comparative Tracking Index	> 600	> 600	V	IEC 60112

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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