

General Information				
Product Description				
Carbon Fiber-reinforced; Rigidity, High; Bio-based, Plant-based; Water absorption, Low				
General				
Filler / Reinforcement	• Carbon Fiber, 30% Filler by Weight			
Features	• High Rigidity	• Low to No Water Absorption	• Renewable Resource Content	
Uses	• Automotive Applications • Automotive Electronics	• Electrical/Electronic Applications • General Purpose		
ASTM & ISO Properties ¹				
Physical	Dry	Conditioned	Unit	Test Method
Density	1.28	--	g/cm³	ISO 1183
Molding Shrinkage ²				Internal Method
Across Flow : 130°C, 2.00 mm	0.40	--	%	
Flow : 130°C, 2.00 mm	0.10	--	%	
Water Absorption				Internal Method
Equilibrium, 23°C, 50% RH	0.90	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	26300	25000	MPa	ISO 527-1/1
Tensile Stress (Break)	265	225	MPa	ISO 527-2/5
Tensile Strain (Break)	1.7	--	%	ISO 527-2/5
Flexural Modulus ³	22000	21900	MPa	ISO 178
Flexural Stress ³	396	360	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
23°C	8.0	--	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179
23°C	58	--	kJ/m²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/A
1.8 MPa, Unannealed	200	--	°C	
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (1.6 mm)	HB	--		UL 94
Additional Information				
Conditioned	Conditioned to 50% RH			

Reny™ XL7001

Mitsubishi Engineering-Plastics Corp - High Performance Polyamide

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	260	°C
Middle Temperature	265	°C
Front Temperature	270	°C
Nozzle Temperature	270	°C
Mold Temperature	100 to 120	°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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