Mitsubishi Engineering-Plastics Corp.

Reny™ 2041

Mitsubishi Engineering-Plastics Corp - Polyamide MXD6

General Information		
Product Description		
GF/Mineral-reinforced, Standard grade		
General		
Filler / Reinforcement	• Glass Fiber\Mineral, 40% Filler by Weight	
Features	• General Purpose	
Uses	• Automotive Applications • Automotive Electronics	• Electrical/Electronic Applications • General Purpose

ASTM & ISO Properties [1]				
Physical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Density	1.70	--	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR)				ISO 1133
275°C/2.16 kg	15	--	g/10 min	
Melt Volume-Flow Rate (MVR)				ISO 1133
275°C/2.16 kg	11	--	cm³/10min	
Molding Shrinkage [2]				Internal Method
Across Flow : 130°C, 2.00 mm	0.64	--	%	
Flow : 130°C, 2.00 mm	0.27	--	%	
Water Absorption				Internal Method
24 hr, 23°C	0.28	--	%	
Equilibrium, 23°C, 50% RH	1.3	--	%	
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	18300	14100	MPa	ISO 527-1/1
Tensile Stress (Break)	187	136	MPa	ISO 527-2/5
Tensile Strain (Break)	1.4	1.6	%	ISO 527-2/5
Flexural Modulus [3]	16200	12800	MPa	ISO 178
Flexural Stress [3]	299	230	MPa	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179
23°C	6.6	7.3	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179
23°C	47	54	kJ/m²	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Deflection Temperature Under Load				
0.45 MPa, Unannealed	231	225	°C	ISO 75-2/B
1.8 MPa, Unannealed	214	204	°C	ISO 75-2/A
CLTE				ISO 11359-2
Flow	2.0E-5	--	cm/cm/°C	
Transverse	5.0E-5	--	cm/cm/°C	

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Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	--	5.0E+12	ohms	IEC 60093
Volume Resistivity	--	2.0E+13	ohms·cm	IEC 60093
Electric Strength				IEC 60243-1
1.00 mm	22	21	kV/mm	
2.00 mm	18	15	kV/mm	
Dielectric Constant				IEC 60250
1 MHz	5.00	5.00		
100 MHz	5.00	8.00		
Dissipation Factor				IEC 60250
1 MHz	9.0E-3	0.038		
100 MHz	8.0E-3	0.096		
Comparative Tracking Index	500	500	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