Mitsubishi Engineering-Plastics Corp.

NOVADURAN™ 5710N2

Mitsubishi Engineering-Plastics Corp - Polybutylene Terephthalate

General Information

Product Description			
Un-reinforced / Flame Retardant V-0 / Toughness, Low Warpage			
General			
Features	• Flame Retardant	• Good Toughness	• Low Warpage
Uses	• Automotive Applications • Automotive Electronics	• Electrical/Electronic Applications • General Purpose	

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.36	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	7.0	cm³/10min	ISO 1133
Molding Shrinkage			Internal Method
Across Flow : 2.00 mm	1.1	%	
Flow : 2.00 mm	1.1	%	
Water Absorption (Saturation, 23°C)	0.080	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	2400	MPa	ISO 527-1/1
Tensile Stress (Yield)	60.0	MPa	ISO 527-2/50
Tensile Strain			ISO 527-2/50
Yield	4.0	%	
Break	20	%	
Flexural Modulus [2]	2350	MPa	ISO 178
Flexural Stress [2]	85.0	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (23°C)	5.0	kJ/m²	ISO 179
Charpy Unnotched Impact Strength (23°C)	200	kJ/m²	ISO 179
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
0.45 MPa, Annealed	135	°C	ISO 75-2/B
1.8 MPa, Annealed	115	°C	ISO 75-2/A
Melting Temperature	224	°C	ISO 11357-3
RTI Elec (0.75 mm)	75.0	°C	UL 746B
RTI Imp (0.75 mm)	75.0	°C	UL 746B
RTI Str (0.75 mm)	75.0	°C	UL 746B
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+16	ohms	IEC 60093
Volume Resistivity	1.0E+16	ohms·cm	IEC 60093
Electric Strength (1.00 mm)	21	kV/mm	IEC 60243-1
Comparative Tracking Index (CTI)	PLC 2		UL 746A

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Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.75 mm	V-0		
1.5 mm	V-0		
3.0 mm	V-0		

Processing Information

Injection	Nominal Value	Unit
Drying Temperature - Hot Air Dryer	120	°C
Drying Time - Hot Air Dryer	5.0 to 8.0	hr
Rear Temperature	240 to 260	°C
Middle Temperature	240 to 260	°C
Front Temperature	240 to 260	°C
Nozzle Temperature	260	°C
Mold Temperature	60 to 100	°C
Injection Pressure	20.0 to 150	MPa
Injection Rate	Moderate-Fast	
Screw Speed	80 to 120	rpm

Notes

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

[2] 2.0 mm/min