Mitsubishi Engineering-Plastics Corp.

Iupital™ FL2020

Mitsubishi Engineering-Plastics Corp - Acetal (POM) Copolymer

General Information		
Product Description		
Abrasion resistant; Fluororesin 20%		
General		
Additive	• PTFE Lubricant: 20%	
Features	• Abrasion Resistant	
Uses	• Automotive Applications • Automotive Electronics	• Electrical/Electronic Applications • General Purpose

ASTM & ISO Properties [1]			
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.51	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	6.0	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	4.7	cm³/10min	ISO 1133
Molding Shrinkage - Flow (3.00 mm)	2.1	%	Internal Method
Water Absorption - 60% RH (23°C)	0.18	%	Internal Method
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	2400	MPa	ISO 527-1/1
Tensile Stress (Yield)	44.0	MPa	ISO 527-2/50
Tensile Strain			ISO 527-2/50
Yield	8.0	%	
Break	15	%	
Flexural Modulus [2]	2200	MPa	ISO 178
Flexural Stress [2]	67.0	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)	50	kJ/m²	ISO 179
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
0.45 MPa, Unannealed	151	°C	ISO 75-2/B
1.8 MPa, Unannealed	96.0	°C	ISO 75-2/A
Melting Temperature	166	°C	ISO 11357-3
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+16	ohms	IEC 60093
Volume Resistivity	1.0E+14	ohms·cm	IEC 60093
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.8 mm)	HB		UL 94

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Processing Information		
Injection	**Nominal Value**	**Unit**
Drying Temperature - Hot Air Dryer	80	°C
Drying Time - Hot Air Dryer	3.0 to 4.0	hr
Rear Temperature	170	°C
Middle Temperature	180	°C
Front Temperature	190	°C
Nozzle Temperature	180 to 210	°C
Mold Temperature	60 to 80	°C
Injection Pressure	50.0 to 100	MPa
Injection Rate	Moderate	
Screw Speed	80 to 120	rpm