

Iupital™ F20-54

Mitsubishi Engineering-Plastics Corp - Acetal (POM) Copolymer

General Information			
Product Description			
Weather resistant; General			
General			
Features	General Purpose	Good Weather Resistance	
Uses	- Automotive Applications - Automotive Electronics	- Electrical/Electronic Applications - General Purpose	
Automotive Specifications	- CHRYSLER MS-DB-100 CPN1758 Color: 100% Color Match - FORD WSK-M4D840-A1 - FORD WSS-M4D840-B1 - GM GMP.POM.008 Color: Black	- GM GMP.POM.008 Color: Natural - GM GMP.POM.018 Color: Black - GM GMP.POM.018 Color: Natural - GM GMW22P-POM-C2L - GM GMW22P-POM-C2U - GM GMW22P-POM-C2	
ASTM & ISO Properties ¹			
Physical	Nominal Value	Unit	Test Method
Density	1.41	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	9.0	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	7.7	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.00 mm)	2.0	%	Internal Method
Water Absorption - 60% RH (23°C)	0.22	%	Internal Method
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2800	MPa	ISO 527-1/1
Tensile Stress (Yield)	62.0	MPa	ISO 527-2/50
Tensile Strain			ISO 527-2/50
Yield	8.5	%	
Break	30	%	
Flexural Modulus ²	2500	MPa	ISO 178
Flexural Stress ²	88.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	6.5	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	240	kJ/m ²	ISO 179
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	156	°C	ISO 75-2/B
1.8 MPa, Unannealed	100	°C	ISO 75-2/A
Melting Temperature	166	°C	ISO 11357-3
CLTE			ISO 11359-2
Flow	1.1E-4	cm/cm/°C	
Transverse	1.1E-4	cm/cm/°C	



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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

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	

