

Iupital® F20-54

Acetal (POM) Copolymer

Mitsubishi Engineering-Plastics Corp

Technical Data

Product Description

Iupital® F20-54 is an Acetal (POM) Copolymer material. It is available in Asia Pacific, Europe, or North America for injection molding.

Important attributes of Iupital® F20-54 are:

- Flame Rated
- Weather Resistant

Typical application of Iupital® F20-54: Automotive

General

Features	• Weather Resistant
Processing Method	• Injection Molding

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)	7.70 cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.00 mm)	2.0 %	
Water Absorption ⁴ (Equilibrium, 23°C, 50% RH)	0.22 %	ISO 62

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus	2800 MPa	ISO 527-2
Tensile Stress (Yield)	62.0 MPa	ISO 527-2
Tensile Strain (Yield)	8.5 %	ISO 527-2
Nominal Tensile Strain at Break	30 %	ISO 527-2
Flexural Modulus	2500 MPa	ISO 178
Flexural Stress	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
Heat Deflection Temperature		
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	

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

Injection	Nominal Value Unit
Drying Temperature	80 °C
Drying Time	3.0 to 4.0 hr

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Injection	Nominal Value Unit
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

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

³ Typical properties: these are not to be construed as specifications.

⁴ 60% RH

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