

Iupital™ F10-02

Acetal (POM) Copolymer

Mitsubishi Engineering-Plastics Corp

PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

Viscosity, High; Injection general

General

Material Status	• Commercial: Active		
Literature ¹	• Technical Datasheet		
UL Yellow Card ²	• E41179-231668		
Search for UL Yellow Card	• Mitsubishi Engineering-Plastics Corp • Iupital™		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• General Purpose	• High Viscosity	
Uses	• Automotive Applications • Automotive Electronics	• Electrical/Electronic Applications • General Purpose	
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)	2.5 g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	2.2 cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.00 mm)	2.2 %	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)	63.0 MPa	ISO 527-2/50
Tensile Strain		ISO 527-2/50
Yield	10 %	
Break	33 %	
Flexural Modulus ⁴	2500 MPa	ISO 178
Flexural Stress ⁴	89.0 MPa	ISO 178

Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength (23°C)	8.0 kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	280 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	



Electrical	Nominal Value Unit	Test Method
Surface Resistivity	1.0E+16 ohms	IEC 60093
Volume Resistivity	1.0E+14 ohms·cm	IEC 60093
Electric Strength		IEC 60243-1
1.00 mm	32 kV/mm	
3.00 mm	19 kV/mm	
Dielectric Constant		IEC 60250
1 MHz	3.90	
100 MHz	3.90	
Dissipation Factor		IEC 60250
1 MHz	7.0E-3	
100 MHz	2.0E-3	
Comparative Tracking Index	600 V	IEC 60112
Flammability	Nominal Value Unit	Test Method
Flame Rating (0.8 mm)	HB	UL 94
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	

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 2.0 mm/min

Where to Buy

Supplier

Mitsubishi Engineering-Plastics Corp
, Japan
Telephone: +81-463-21-8610
Web: <http://www.m-ep.co.jp/>

Distributor

M. Holland Canada Company
Telephone: 905-665-1168
Web: <http://www.mholland.com/>
Availability: Canada

M. Holland Company
Telephone: 855-497-1403
Web: <http://www.mholland.com/>
Availability: Mexico, United States

Nexeo Plastics - Europe

Nexeo Plastics is a Pan European distribution company. Contact Nexeo for availability of individual products by country.

Telephone: +34-93-480-9125

Web: <https://www.nexeoplastics.com/>

Availability: Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Spain, Sweden, Switzerland, United Kingdom

The Materials Group

Telephone: 616-863-6046

Web: <http://thematerialsgroup.com/>

Availability: North America