

Technical Data Sheet

**Formion FI 388**

Ionomer
LyondellBasell Industries
Engineering Plastics

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber, 40% Filler by Weight
Processing Method	• Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.27	1.27 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	1.0 g/10 min	1.0 g/10 min	ASTM D1238
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength	5950 psi	41.0 MPa	ASTM D638
Tensile Elongation (Break)	5.0 %	5.0 %	ASTM D638
Flexural Modulus - Tangent (73°F (23°C))	450000 psi	3100 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F (23°C))	3.7 ft·lb/in	200 J/m	ASTM D256
Gardner Impact			ASTM D3029
-22°F (-30°C)	15.9 in·lb	1.80 J	
73°F (23°C)	15.9 in·lb	1.80 J	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness (Shore D, 15 sec)	62	62	ASTM D2240
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed, 0.126 in (3.20 mm)	198 °F	92.0 °C	
CLTE - Flow (-22 to 140°F (-30 to 60°C))	6.7E-6 in/in/°F	1.2E-5 cm/cm/°C	ASTM E831

Additional Information

Recommended Purge Material - Polyethylene

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature - Desiccant Dryer	120 to 140 °F	49 to 60 °C
Drying Time - Desiccant Dryer	2.0 to 4.0 hr	2.0 to 4.0 hr
Suggested Max Moisture	0.08 %	0.08 %
Rear Temperature	450 to 500 °F	232 to 260 °C
Middle Temperature	450 to 500 °F	232 to 260 °C
Front Temperature	450 to 500 °F	232 to 260 °C
Nozzle Temperature	450 to 500 °F	232 to 260 °C
Processing (Melt) Temp	450 to 500 °F	232 to 260 °C
Mold Temperature	50 to 130 °F	10 to 54 °C
Injection Pressure	8000 to 15000 psi	55.2 to 103 MPa
Holding Pressure	4000 to 9000 psi	27.6 to 62.1 MPa
Back Pressure	0.00 to 100 psi	0.00 to 0.689 MPa
Screw Speed	30 to 60 rpm	30 to 60 rpm
Cushion	0.200 to 0.400 in	5.08 to 10.2 mm

Notes

These are typical property values not to be construed as specification limits.

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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