

Solvay Specialty Polymers Ixef® 5002 Polyarylamide (PARA), 20% GlassPTFE (discontinued **)

Category : Polymer , Thermoplastic , Polyarylamide (PAA) , Polyarylamide, Glass Fiber Filled

Material Notes:

Ixef 5002 is a 20% glass-fiber reinforced, PTFE modified polyarylamide which exhibits very good mechanical performance, very good surface gloss, and superior wear properties. - Natural: Ixef 5002/0085- Custom Colorable

Features: Good Chemical Resistance; Good Creep Resistance; Good Dimensional Stability; Good Wear Resistance; High Flow; High Stiffness; High Strength; Low Friction; Low Moisture Absorption; Outstanding Surface Finish

Uses: Appliance Components; Appliances; Automotive Applications; Automotive Electronics; Bushings; Business Equipment; Cams; Cell Phones; Electrical Housing; Electrical/Electronic Applications; Furniture; Gears; Industrial Applications; Lawn and Garden Equipment; Machine/Mechanical Parts; Metal Replacement; Power/Other Tools

Availability: Africa & Middle East; Asia Pacific; Europe; North America; South America

Hot Runners: 250°C to 260°C (482°F to 500°F)

Injection Pressure: rapid

Drying: The material as supplied is ready for molding without drying. However, If the bags have been open for longer than 24 hours, the material needs to be dried. When using a desiccant air dryer with dew point of -28°C (-18°F) or lower, these guidelines can be followed: 0.5-1.5 hour at 120°C (248°F), 1-3 hours at 100°C (212°F), or 1-7 hours at 80°C (176°F).

Injection Molding: IXEF 5002 compound can be readily injection molded in most screw injection molding machines. A general purpose screw is recommended, with minimum back pressure. The measured melt temperature should be about 280°C (536°F), and the barrel temperatures should be around 250°C to 260°C (482°F to 500°F) in the rear zone, gradually increasing to 260°C to 290°C (500°F to 554°F) in the front zone. If hot runners are used, they should be set to 250°C to 260°C (482°F to 500°F). To maximize crystallinity, the temperature of the mold cavity surface must be held between 120°C and 140°C (248°F and 284°F). Molding at lower temperatures will produce articles that may warp, have poor surface appearance, and have a greater tendency to creep. Set injection pressure to give rapid injection. Adjust holding pressure and hold time to maximize part weight. Transfer from injection to hold pressure at the screw position just before the part is completely filled (95%-99%).

Information provide by Solvay Specialty Polymers

Order this product through the following link:

http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Ixef-5002-Polyarylamide-PARA-20-GlassPTFE-nbspdiscontinued-.php

Physical Properties	Metric	English	Comments
Density	1.51 g/cc	0.0546 lb/in ³	ISO 1183
Water Absorption	0.22 %	0.22 %	24 hrs; ISO 62
Linear Mold Shrinkage	0.0020 - 0.0040 cm/cm	0.0020 - 0.0040 in/in	ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	135 MPa	19600 psi	ISO 527-2
Elongation at Break	2.2 %	2.2 %	ISO 527-2
Tensile Modulus	10.0 GPa	1450 ksi	ISO 527-2
Flexural Strength	215 MPa	31200 psi	ISO 178
Flexural Modulus	8.00 GPa	1160 ksi	ISO 178

Izod Impact, Notched Mechanical Properties	0.600 J/cm Metric	1.12 ft-lb/in English	ASTM D256 Comments
Izod Impact, Unnotched	3.70 J/cm	6.93 ft-lb/in	ASTM D256

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	29.0 µm/m-°C	16.1 µin/in-°F	ISO 11359-2
Deflection Temperature at 1.8 MPa (264 psi)	220 °C	428 °F	Unannealed; ISO 75-2/A
Oxygen Index	23 %	23 %	ISO 4598-2

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	IEC 60093
Dielectric Constant	3.9 @Frequency 110 Hz	3.9 @Frequency 110 Hz	IEC 60250
Dielectric Strength	28.0 kV/mm	711 kV/in	IEC 60243-1
Dissipation Factor	0.015 @Frequency 110 Hz	0.015 @Frequency 110 Hz	IEC 60250
Comparative Tracking Index	600 V	600 V	IEC 60112

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	250 - 260 °C	482 - 500 °F	
Front Barrel Temperature	260 - 290 °C	500 - 554 °F	
Melt Temperature	280 °C	536 °F	
Mold Temperature	120 - 140 °C	248 - 284 °F	
Drying Temperature	120 °C	248 °F	
Dry Time	0.500 - 1.50 hour	0.500 - 1.50 hour	

Descriptive Properties	Value	Comments
Additional Properties	Moisture Absorption - Internal Method: 1.8 %	
Appearance	Colors Available; Natural Color	
Forms	Pellets	
Processing Method	Injection Molding	

RoHS Compliance	RoHS Compliant
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Descriptive Properties	Value	Comments
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