

## Solvay Specialty Polymers Ixef® 2011 Polyarylamide (PARA), 42% Mineral Filler (discontinued \*\*)

Category : Polymer , Thermoplastic , Polyamide-imide (PAI)

### Material Notes:

Ixef 2011 is a general purpose, 42% mineral reinforced polyarylamide which exhibits high strength and stiffness, low warpage, and outstanding surface gloss. - Black: Ixef 2011/9000- Custom Colorable Features: Good Chemical Resistance; Good Creep Resistance; Good Dimensional Stability; High Flow; High Stiffness; High Strength; Low Moisture Absorption; Low Warpage; Outstanding Surface Finish Uses: Appliance Components; Appliances; Automotive Applications; Automotive Electronics; Automotive Interior Parts; Automotive Under the Hood; Bushings; Business Equipment; Camera 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 2011 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 to 260°C (482 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-2011-Polyarylamide-PARA-42-Mineral-Filler-nbspdiscontinued-.php](http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Ixef-2011-Polyarylamide-PARA-42-Mineral-Filler-nbspdiscontinued-.php)

Physical Properties	Metric	English	Comments
Density	1.59 g/cc	0.0574 lb/in <sup>3</sup>	ISO 1183
Water Absorption	0.35 %	0.35 %	24 hrs; ISO 62
Linear Mold Shrinkage	0.0015 - 0.0035 cm/cm	0.0015 - 0.0035 in/in	ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	140 MPa	20300 psi	ISO 527-2
Elongation at Break	1.3 %	1.3 %	ISO 527-2
Tensile Modulus	18.0 GPa	2610 ksi	ISO 527-2
Flexural Strength	240 MPa	34800 psi	ISO 178
Flexural Modulus	17.0 GPa	2470 ksi	ISO 178

Mechanical Properties	Metric <sup>1</sup> /cm	English <sup>1</sup> -lb/in	Comments
Izod Impact, Unnotched	5.30 J/cm	9.93 ft-lb/in	ASTM D256

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	18.0 µm/m-°C	10.0 µin/in-°F	ISO 11359-2
Deflection Temperature at 1.8 MPa (264 psi)	185 °C	365 °F	Unannealed; ISO 75-2/A
Flammability, UL94	HB	HB	
Oxygen Index	29 %	29 %	ISO 4598-2

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+13 ohm-cm	1.00e+13 ohm-cm	IEC 60093
Surface Resistance	1.00e+10 ohm	1.00e+10 ohm	IEC 60093
Dielectric Constant	4.3 @Frequency 110 Hz	4.3 @Frequency 110 Hz	IEC 60250
Dielectric Strength	24.0 kV/mm	610 kV/in	IEC 60243-1
Dissipation Factor	0.0090 @Frequency 110 Hz	0.0090 @Frequency 110 Hz	IEC 60250
Comparative Tracking Index	520 V	520 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: 2.0 %	
Appearance	Black; Colors Available	

Forms Descriptive Properties	Pellets Value	Comments
Processing Method	Injection Molding	
RoHS Compliance	RoHS Compliant	
Screw L/D Ratio	15.0:1.0 to 20.0:1.0	

## Contact Songhan Plastic Technology Co.,Ltd.

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