

Solvay Specialty Polymers Ixef® 1622 Polyarylamide (PARA) (Unverified Data**)

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

Material Notes:

Ixef 1622 is an impact modified, 50% glass-fiber reinforced polyarylamide. which exhibits very high strength and rigidity, outstanding surface gloss, and excellent impact resistance. - Natural: Ixef 1622/0003 - Black: Ixef 1622/9003 - Custom ColorableAdditional Information: Unless otherwise specified, Typical Values are obtained from Dry (also called DAM, Dry as Molded) samples. For Conditioned data, samples are tested at 50% Relative Humidity. Injection Notes: 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 1622 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 270°C (518°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 280°C (500°F to 536°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%). Data is presented for dry polymer unless noted as 'conditioned'. Information provided by Solvay Specialty Polymers.

Order this product through the following link: http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Ixef-1622-Polyarylamide-PARA-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.60 g/cc	0.0578 lb/in³	ISO 1183
Filler Content	50 %	50 %	Glass Fiber Reinforcement
	0.19 %	0.19%	
Water Absorption	@Temperature 23.0 °C, Time 86400 sec	@Temperature 73.4 °F, Time 24.0 hour	ISO 62
Moisture Absorption at Equilibrium	1.5 %	1.5 %	65% RH; Internal Method
Linear Mold Shrinkage, Flow	0.0010 - 0.0030 cm/cm	0.0010 - 0.0030 in/in	Internal Method

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	235 MPa	34100 psi	ISO 527-2
Tensile Strength, Yield	200 MPa	29000 psi	Conditioned; ISO 527-2
Elongation at Break	2.6 %	2.6 %	ISO 527-2
	2.7 %	2.7 %	Conditioned; ISO 527-2



Mechanical Properties	Metric 16.0 GPa	English 2020 ksi	Comments Conditioned, ISO 527-2
	17.0 GPa	2470 ksi	ISO 527-2
Flexural Strength	360 MPa	52200 psi	ISO 178
Flexural Modulus	17.0 GPa	2470 ksi	ISO 178
Izod Impact, Notched	1.20 J/cm	2.25 ft-lb/in	ASTM D256
	11.0 J/cm	20.6 ft-lb/in	ASTM D256

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	220 °C	428 °F	Annealed; ISO 75-2/A
Flammability, UL94	V-0	V-0	UL 94
Oxygen Index	25 %	25 %	ISO 4589-2

Electrical Properties	Metric	English	Comments
	4.23	4.23	
Dielectric Constant	@Frequency 1.00e+9 Hz	@Frequency 1.00e+9 Hz	Method B; ASTM D2520
	4.27	4.27	
	@Frequency 2.40e+9 Hz	@Frequency 2.40e+9 Hz	Method B; ASTM D2520
Dielectric Strength	25.0 kV/mm	635 kV/in	IEC 60243-1
	0.0095	0.0095	Method B; ASTM D2520
Dissipation Factor	@Frequency 1.00e+9 Hz	@Frequency 1.00e+9 Hz	
	0.0095	0.0095	Method B; ASTM D2520
	@Frequency 2.00e+9 Hz	@Frequency 2.00e+9 Hz	

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	250 - 260 °C	482 - 500 °F	
Front Barrel Temperature	260 - 280 °C	500 - 536 °F	
Melt Temperature	270 °C	518 °F	
Mold Temperature	120 - 140 °C	248 - 284 °F	



Processing Properties	Metric	248 °F English	Comments
Dry Time	0.500 - 1.50 hour	0.500 - 1.50 hour	

Descriptive Properties	Value	Comments
Additive	Impact Modifier	
Appearance	Black	
	Colors Available	
	Natural Color	
Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	North America	
	South America	
Features	Good Chemical Resistance	
	Good Creep Resistance	
	Good Dimensional Stability	
	High Flow	
	High Stiffness	
	High Strength	
	Impact Modified	
	Low Moisture Absorption	
	Outstanding Surface Finish	
Forms	Pellets	
Generic	PARA	
Processing Method	Injection Molding	
RoHS Compliance	RoHS Compliant	
Uses	Appliance Components	
	Appliances	



Descriptive Properties	Automotive Applications Value	Comments
	Automotive Electronics	
	Business Equipment	
	Camera Applications	
	Electrical Housing	
	Electrical/Electronic Applications	
	Furniture	
	Gears	
	Housings	
	Industrial Applications	
	Lawn and Garden Equipment	
	Machine/Mechanical Parts	
	Metal Replacement	
	Power/Other Tools	

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