Ixef® 1022

Polyarylamide

Solvay Specialty Polymers

Message:

IXEF 1022 is a 50% glass fiber reinforced universal polyaramide compound with extremely high strength and rigidity, excellent surface gloss and excellent creep resistance. IXEF 1022/0006 (natural) and IXEF 1022/9006 (black) are both low exposure (less than 24 hours) medical supplies conforming to ISO 10993 standards. IXEF resin is very suitable for cold water products. Ixef 1022 can be in contact with food. Both black (Ixef 1022/9006) and natural colors (Ixef 1022/ 0006) meet the European 10/2011/EC standards. Ixef 1022 also meets the following European water approval standards: France Positive List (FPL) :Ixef 1022/0006 (natural color) and Ixef 1022 /0008 (natural color); KTW (cold water) :Ixef 1022/0006 (natural color) and Ixef1022/9066 (black);ACS: Ixef 1022/9066 (black). -black: 1022/9006 (ISO 10993 compliant) and Ixef 1022/9008 -natural color: 1022/0006 (ISO 10993 compliant) and Ixef 1022/0008

-there are other colors available

customers can color by themselves

General Information		
UL YellowCard	E95746-264542	
Filler / Reinforcement	Glass fiber reinforced material, 50% filler by weight	
Features	Super rigidity	
	Good dimensional stability	
	Excellent appearance	
	Low hygroscopicity	
	High strength	
	Good disinfection	
	Good creep resistance	
	High liquidity	
	Good chemical resistance	
	General	
Uses	Electrical components	
	Electrical appliances	
	Highlight applications	
	Furniture	
	Application in Automobile Field	
	Car interior parts	
	Mobile phone	
	Sporting goods	
	Surgical instruments	
	Medical equipment	
	Medical devices	
RoHS Compliance	RoHS compliance	
UL File Number	E95746	
Appearance	Black	

Available colors

Natural color

Forms	Particle	
Processing Method	Injection molding	
Multi-Point Data	Isothermal Stress vs. Strain (ISO 11403-1)	
	Secant Modulus vs. Strain (ISO 11403-1)	
	Viscosity vs. Shear Rate (ISO 11403-2)	

Physical	Dry	Conditioned	Unit	Test Method
Density	1.64		g/cm³	ISO 1183
Molding Shrinkage	0.10 - 0.30		%	ISO 294-4
Water Absorption (23°C, 24 hr)	0.16		%	ISO 62
Water absorption-Equil, 65% RH	1.50			Internal method
Dissipation Factor	0.017			IEC 60250
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	20000	20000	MPa	ISO 527-2
Tensile Stress (Break)	280	260	MPa	ISO 527-2
Tensile Strain (Break)	1.9	2.2	%	ISO 527-2
Flexural Modulus	19000		MPa	ISO 178
Flexural Stress	400		MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Notched Izod Impact	110		J/m	ASTM D256
Unnotched Izod Impact	850		J/m	ASTM D256
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature (1.8 MPa,				
Unannealed)	230		°C	ISO 75-2/A
CLTE - Flow	1.5E-5		cm/cm/°C	ISO 11359-2
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity	1.0E+13		ohms·cm	IEC 60093
Dielectric Strength	31		kV/mm	IEC 60243-1
Dielectric Constant (110 Hz)	4.60			IEC 60250
Comparative Tracking Index	570		V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating ¹	НВ			UL 94
Oxygen Index	25		%	ISO 4589-2
Injection	Dry	Unit		
Drying Temperature	120		°C	
Drying Time	0.50 - 1.5		hr	

Rear Temperature	250 - 260	°C
Front Temperature	260 - 290	°C
Nozzle Temperature	260 - 290	℃
Processing (Melt) Temp	280	°C
Mold Temperature	120 - 140	°C
Injection Rate	Fast	

Injection instructions

Hot runners: 250°C to 260°C (482°C to 500°F)Storagelxef® compounds are shipped in moisture-resistant packages at moisture levels according to specifications. Sealed, undamaged bags should be preferably stored in a dry room at a maximum temperature of 50°C (122°F) and should be protected from possible damage. If only a portion of a package is used, the remaining material should be transferred into a sealable container. It is recommended that lxef® resins be dried prior to molding following the recommendations found in this datasheet and/or in the lxef® processing guide.DryingThe 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 MoldingIxef 1022 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 to 290°C (500 to 554°F) in the front zone. If hot runners are used, they should be set to 250 to 260°C (482 to 500°F). To maximize crystallinity, the temperature of the mold cavity surface must be held between 120 and 140°C (248 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%).

NOTE

1.

These flammability ratings
do not represent the risk of
these materials or any
other materials in actual
fire situations.

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