Ixef® 1025

Polyarylamide

Solvay Specialty Polymers

Message:

Ixef[®] 1025 is a 50% glass-fiber reinforced, UV stabilized polyarylamide which exhibits very high strength and rigidity, outstanding surface gloss, and excellent creep resistance. Black: Ixef[®] 1025/9008

General Information					
Filler / Reinforcement	Glass fiber reinforced material, 50% filler by weight				
Additive	UV stabilizer				
Features	Super rigidity				
	Good dimensional stability				
	Excellent appearance				
	Low hygroscopicity				
	High strength				
	Good creep resistance				
	High liquidity				
	Good chemical resistance				
Uses	Lawn and Garden Equipment				
	Gear				
	Electrical appliances				
	Power/other tools				
	Industrial application				
	Machine/mechanical parts				
	Home appliance components				
	Furniture				
	Metal substitution				
	Application in Automobile Field				
	Business equipment				
RoHS Compliance	RoHS compliance				
Appearance	Black				
Forms	Particle				
Processing Method	Injection molding				
Multi-Point Data	Isothermal Stress vs. Strain (ISO 11403-1)				
Physical	Nominal Value	Unit	Test Method		
Density	1.61	g/cm³	ISO 1183		
Molding Shrinkage	0.10 - 0.30	%	Internal method		
Water Absorption (23°C, 24 hr)	0.16	%	ISO 62		

Water absorption-Equil, 65% RH	1.5	%	Internal method
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	17000	MPa	ISO 527-2
Tensile Stress (Break)	230	MPa	ISO 527-2
Tensile Strain (Break)	1.9	%	ISO 527-2
Flexural Modulus	17000	MPa	ISO 178
Flexural Stress	310	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	95	J/m	ASTM D256
Unnotched Izod Impact	700	J/m	ASTM D256
Thermal	Nominal Value	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
Flammability	Nominal Value	Unit	Test Method
Flame Rating ¹	НВ		UL 94
Oxygen Index	25	%	ISO 4589-2
Injection	Nominal Value	Unit	
Drying Temperature	120	°C	
Drying Time	0.50 - 1.5	hr	
Rear Temperature	250 - 260	°C	
Front Temperature	260 - 290	°C	
Processing (Melt) Temp	280	°C	
Mold Temperature	120 - 140	°C	

Injection instructions

Hot Runners: 250°C to 260°C (482°F 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 1025 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 one. If hot runners are used, they should be set to 250°C to 60°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 84°F). Molding at lower temperatures will produce articles hat may warp, have poor surface appearance, and have a greater tendency to creep. et 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% to 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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