Ixef® 1022

polyarylamide

Ixef 1022 is a 50% glass-fiber reinforced, general purpose polyarylamide compound which exhibits very high strength and rigidity, outstanding surface gloss, and excellent creep resistance.

Ixef 1022/0006 (natural) and Ixef 1022/9006 (black) are in compliance with ISO 10993 for medical applications and NSF/ANSI Std 51 for food equipment materials.

Colors Available:

- Black: Ixef 1022/9008 and 1022/9006
- Natural: Ixef 1022/0008 and I022/0006
- Other colors available
- Custom colorable (minimum quanities apply)

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • North America	• South America
Filler / Reinforcement	• Glass Fiber Reinforcement, 50% Filler by Weight		
Features	• General Purpose • Good Chemical Resistance • Good Creep Resistance • Good Dimensional Stability	• Good Processability • Good Surface Finish • High Flow • High Gloss	• High Rigidity • High Strength • Low Moisture Absorption • Radiation Sterilizable
Uses	• Automotive Applications • Automotive Interior Parts • Cell Phones	• Dental Applications • Food Service Applications • Furniture	• High Gloss Applications • Medical/Healthcare Applications • Sporting Goods
RoHS Compliance	• RoHS Compliant		
Appearance	• Black	• Colors Available	• Light Beige
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	Dry	Conditioned	Unit	Test Method
Density	1.64	--	g/cm³	ISO 1183
Molding Shrinkage	0.10 to 0.30	--	%	ISO 294-4
Water Absorption (24 hr, 23°C)	0.16	--	%	ISO 62
Moisture Absorption (Equil, 65% RH)	1.5	--	%	Internal Method
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 Strength	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				ISO 75-2/A
1.8 MPa, Unannealed	230	--	°C	
CLTE - Flow	0.000015	--	cm/cm/°C	ISO 11359-2

Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity	1.0E+13	--	ohm·cm	IEC 60093
Dielectric Constant (110 Hz)	4.60	--		IEC 60250
Dissipation Factor (110 Hz)	0.017	--		IEC 60250
Comparative Tracking Index	570	--	V	IEC 60112
Electric Strength	31	--	kV/mm	IEC 60243-1

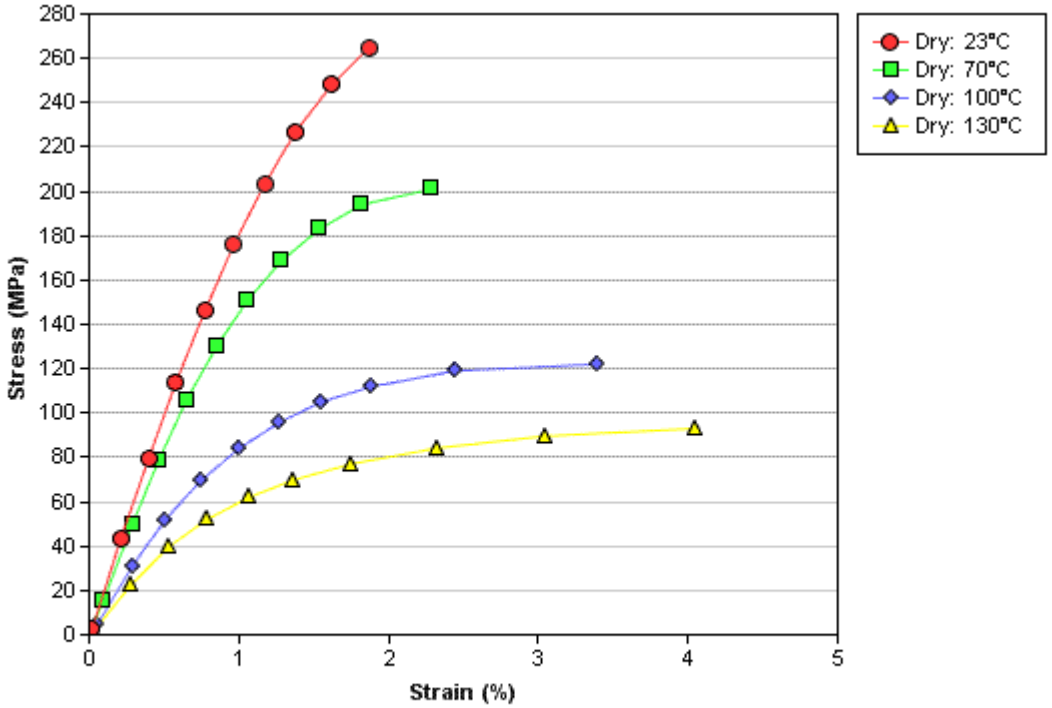
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating - UL [1]	HB	--		UL 94
Oxygen Index	25	--	%	ISO 4589-2

Injection	Typical Value	Unit
Drying Temperature	120	°C
Drying Time	0.50 to 1.5	hr
Rear Temperature	250 to 260	°C
Front Temperature	260 to 290	°C
Nozzle Temperature	260 to 290	°C
Processing (Melt) Temp	280	°C
Mold Temperature	120 to 140	°C
Injection Rate	Fast	

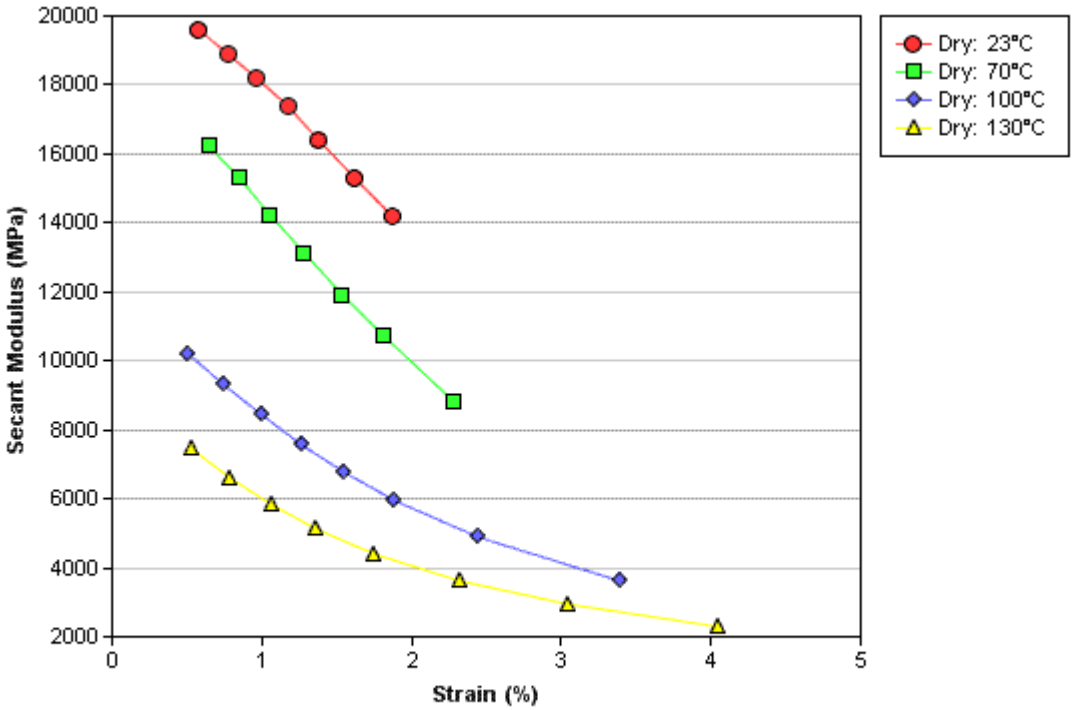
Injection Notes

Hot runners: 482° to 500°F

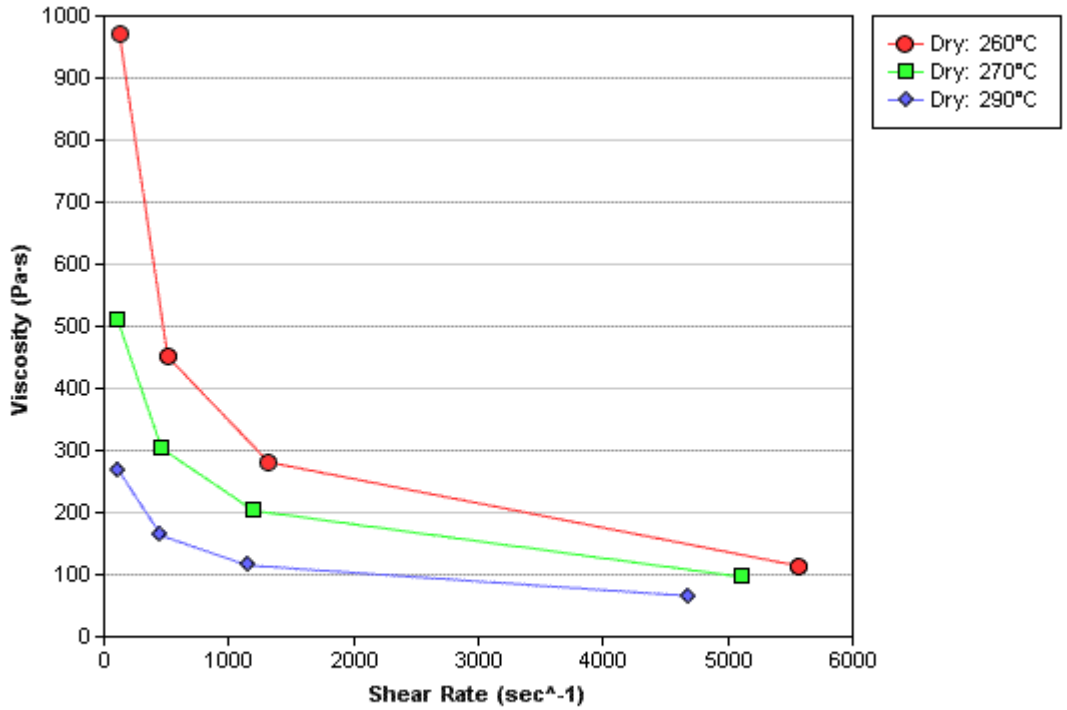
Isothermal Stress vs. Strain (ISO 11403-1)



Secant Modulus vs. Strain (ISO 11403-1)



Viscosity vs. Shear Rate (ISO 11403-2)



Notes

[1] These flammability ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions.

For assistance with an emergency involving products of Solvay Advanced Polymers, such as a spill, leak, fire, or explosion, call day or night:

Emergency Health Information

USA +1.800.621.4590
International +1.770.772.8577

Emergency Spill Information

USA +1.800.424.9300 / +1.703.527.3887 (CHEMTREC)
Europe +44 208.762.8322 (CARECHEM)
China +86.10.5100.3039
All other Asian countries +65.633.44.177

For additional product information, technical assistance, and Material Safety Data Sheets (MSDS), call:

USA + 1.800.621.4557/ +1.770.772.8760
Europe +49.211.5135.9000
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China & Southeast Asia +86.21.5080.5080

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Material Safety Data Sheets (MSDS) for products of Solvay Advanced Polymers are available upon request from your sales representative or by emailing us at advancedpolymers@solvay.com. Always consult the appropriate MSDS before using any of our products.

Property values for individual batches will vary within specification limits. Unless otherwise noted, values shown are typical for uncolored resin; colorants may alter values. For Preliminary Data Sheets, values are typical of limited production and specifications are not yet established.

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