# Product Data

IXEF® polyarylamide

## 2030

IXEF 2030 is a 55% glass-fiber/mineral reinforced polyarylamide compound which exhibits high strength, very high stiffness, low warpage, excellent creep resistance and outstanding surface gloss.

The IXEF family of materials consists of polyarylamide resins compounded with glass fibers, minerals, and other additives. The compounds in this family are characterized by high strength and stiffness, creep resistance at high stress levels, high flow, low and slow moisture pickup, excellent dimensional stability, and excellent surface quality and gloss. They can be easily processed on conventional injection molding equipment.

### Typical Properties of IXEF 2030

| | | Typical Values (1) | | | |
|---|---|---|---|---|---|
| | Test | SI Units | | U.S. Customary Units | |
| Property | Method | DAM(2) | Units | DAM(2) | Units |
| **Mechanical** | | | | | |
| Tensile Strength | ISO 527 | 140 | MPa | 20.3 | kpsi |
| Tensile Elongation | ISO 527 | 1.2 | % | 1.2 | % |
| Tensile Modulus | ISO 527 | 21.5 | GPa | 3.12 | Mpsi |
| Flexural Strength | ISO 178 | 220 | MPa | 31.9 | kpsi |
| Flexural Modulus | ISO 178 | 19 | GPa | 2.76 | Mpsi |
| Izod Impact, Notched | ASTM D 256 | 50 | J/m | 0.9 | ft-lb/in |
| Izod Impact, Unnotched | ASTM D 256 | 265 | J/m | 5 | ft-lb/in |
| **Thermal** | | | | | |
| Heat Deflection Temperature | ISO 75A | 220 | °C | 428 | °F |
| Flammability(3) | UL 94 | HB | | HB | |
| Coefficient of Thermal Expansion | ISO 11395 | 18 | $10^{-6}$ $K^{-1}$ | 10.0 | $10^{-6}$ in/in°F |
| Limiting Oxygen Index | ISO 4589 | 26 | % | 26 | % |
| **Electrical** | | | | | |
| Dielectric Strength | IEC 243 | 35 | kV/mm | 881 | V/mil |
| Volume Resistivity | IEC 93/167 | $10^{13}$ | ohm-cm | $10^{13}$ | ohm-cm |
| Comparative Tracking Index (CTI) | IEC 112 | 600 | V | 600 | V |
| Dielectric Constant at 100 Hz | IEC 250 | 4.8 | | 4.8 | |
| Dielectric Loss Angle at 100 Hz | IEC 250 | 0.025 | | 0.025 | |
| **General** | | | | | |
| Specific Gravity | ISO 1183 | 1.74 | | 1.74 | |
| Reinforcement Content | | 55 | % | 55 | % |
| Moisture Absorption, 24 hr. | ISO 62 | 0.19 | % | 0.19 | % |
| Moisture Absorption (Equil) 65% RH | Solvay | 1.6 | % | 1.6 | % |
| Mold Shrinkage in Flow Direction(4) | Solvay | 0.1-0.4 | % | 0.1-0.4 | % |

(1) Actual properties of individual batches will vary within specification limits. Properties are typical of black compound. Other colorants or other additives will alter values.
(2) Dry as molded.
(3) These flammability ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions.

## 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 2030 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%).

## Standard Packaging and Labeling

IXEF 2030 compound is packaged in foil lined, multiwall paper bags containing 25 kg (55.115 pounds) of material. Special packaging can be supplied upon request. Individual packages will be plainly marked with the product number, the color, the lot number, and the net weight.

## Product Safety and Emergency Service

For product safety information or a Material Safety Data Sheet on a product of Solvay Advanced Polymers

**1 (800) 621-4557**
**1 (770) 772-8880 outside of U.S.**

For information or help in an emergency such as a spill, leak, fire or explosion, call day or night:

## Emergency Health Information

**1 (800) 621-4590 or**
**1 (770) 772-5177 outside of U.S.**

Emergency Spill Information

**CHEMTREC 1 (800) 424-9300**
**1 (703) 527-3887 outside of U.S.**
**collect calls accepted**

## For Additional Information

Europe

**+49 211 513 590 00** (Germany)

USA and rest of world

Technical Service
**1 (800) 621-4557 or**
**1 (770) 772-8760 outside of U.S.**

Customer Service
**1 (800) 848-9744 or**
**1 (770) 772-8762 outside of U.S.**

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