

TECHNICAL DATA SHEET

Akulon® Ultraflow K-FKGS6/B

Envalior
PA6-GF30 FR(17)

Processing

Injection molding

Delivery Form

Pellets

Special Characteristics

Flame retardant, Heat stabilized or stable to heat

Product Text

Product Information

30% Glass Reinforced, Heat Stabilized, Flame Retardant, High Flow

ISO 1043 PA6-GF30 FR(17)

| Processing/Physical Characteristics | Value | Unit | Standard |
|--|--------|-------------------|----------------|
| Density of melt | 1150 | kg/m ³ | |
| Thermal conductivity of melt | 0.26 | W/(m K) | |
| Spec. heat capacity of melt | 1900 | J/(kg K) | |
| Eff. thermal diffusivity | 1.2E-7 | m ² /s | |
| Mechanical Properties | Value | Unit | Standard |
| Tensile modulus | 12000 | MPa | ISO 527 |
| Stress at break | 155 | MPa | ISO 527 |
| Strain at break | 2.3 | % | ISO 527 |
| Poisson's ratio | 0.35 | | ISO 527 |
| Charpy impact strength, +23°C | 55 | kJ/m ² | ISO 179/1eU |
| Charpy impact strength, -30°C | 60 | kJ/m ² | ISO 179/1eU |
| Charpy notched impact strength, +23°C | 12 | kJ/m ² | ISO 179/1eA |
| Charpy notched impact strength, -30°C | 12 | kJ/m ² | ISO 179/1eA |
| Thermal Properties | Value | Unit | Standard |
| Melting temperature, 10°C/min | 220 | °C | ISO 11357-1/-3 |
| Temp. of deflection under load, 1.80 MPa | 205 | °C | ISO 75-1/-2 |
| Temp. of deflection under load, 0.45 MPa | 215 | °C | ISO 75-1/-2 |

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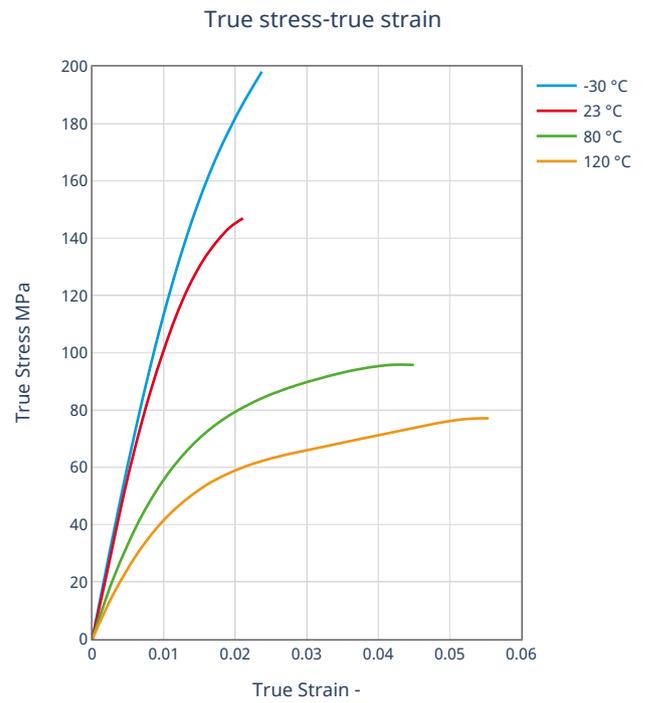
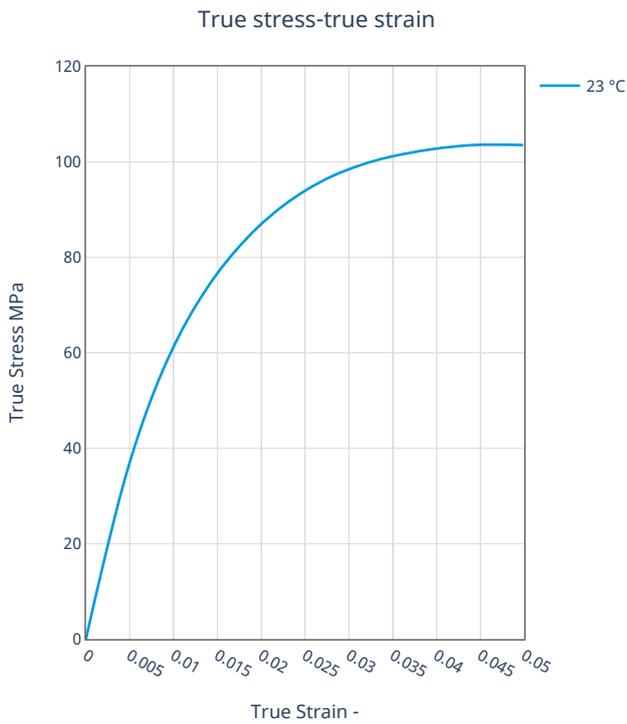
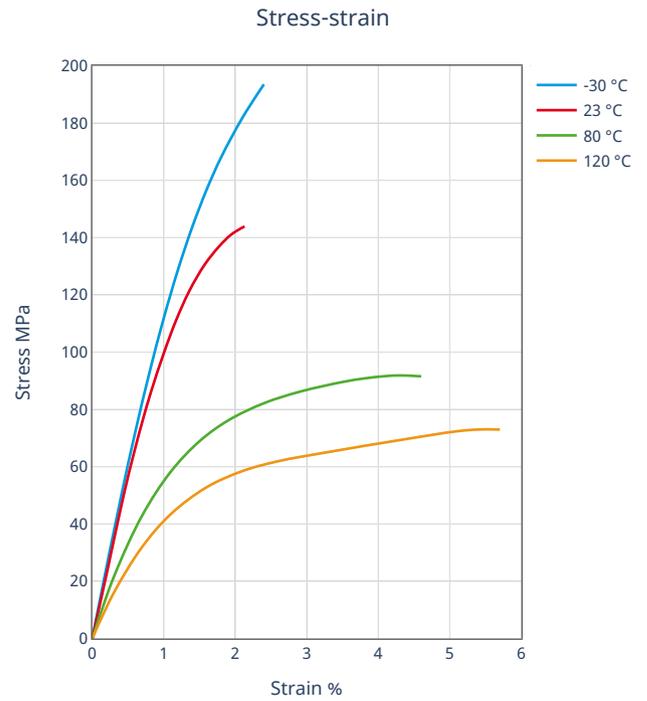
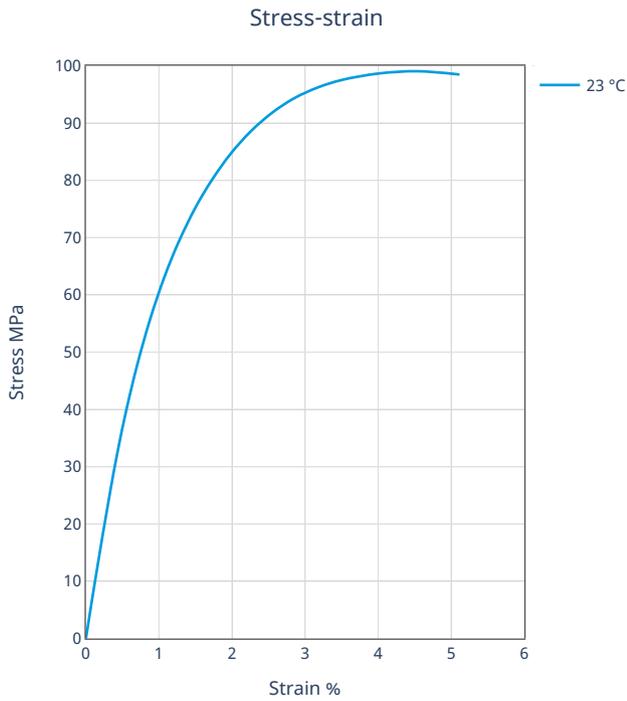
Envalior

| Thermal Properties | Value | Unit | Standard |
|---|-------|-------------------|-----------------|
| Coeff. of linear therm. expansion, parallel | 20 | E-6/K | ISO 11359-1/-2 |
| Coeff. of linear therm. expansion, normal | 110 | E-6/K | ISO 11359-1/-2 |
| Burning behav. at 1.5 mm nom. thickn. | V-0 | class | IEC 60695-11-10 |
| Thickness tested | 1.5 | mm | |
| Yellow card available | yes | | |
| Burning behav. at thickness h | V-0 | class | IEC 60695-11-10 |
| Thickness tested | 3 | mm | |
| Yellow card available | yes | | |
| Burning behav. 5V at thickness h | 5VA | class | IEC 60695-11-20 |
| Thickness tested | 1.5 | mm | |
| Yellow card available | yes | | |
| Oxygen index | 30 | % | ISO 4589-1/-2 |
| Electrical Properties | Value | Unit | Standard |
| Relative permittivity, 100Hz | 3.5 | | IEC 62631-2-1 |
| Relative permittivity, 1MHz | 3.4 | | IEC 62631-2-1 |
| Dissipation factor, 100Hz | 60 | E-4 | IEC 62631-2-1 |
| Dissipation factor, 1MHz | 120 | E-4 | IEC 62631-2-1 |
| Volume resistivity | 1E13 | Ohm*m | IEC 62631-3-1 |
| Surface resistivity | 1E14 | Ohm | IEC 62631-3-2 |
| Electric strength | 33 | kV/mm | IEC 60243-1 |
| Comparative tracking index | 325 | | IEC 60112 |
| Other Properties | Value | Unit | Standard |
| Water absorption | 4.5 | % | Sim. to ISO 62 |
| Humidity absorption | 1.3 | % | Sim. to ISO 62 |
| Density | 1550 | kg/m ³ | ISO 1183 |

Diagrams

Akulon® Ultraflow K-FKGS6/B

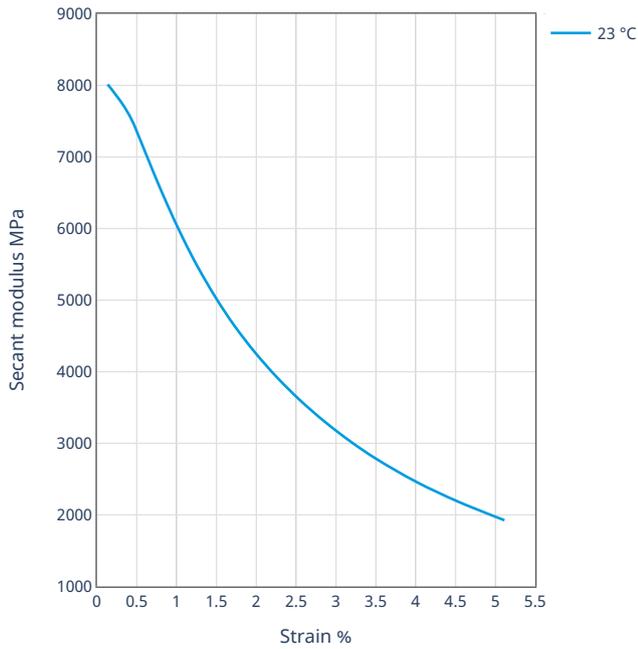
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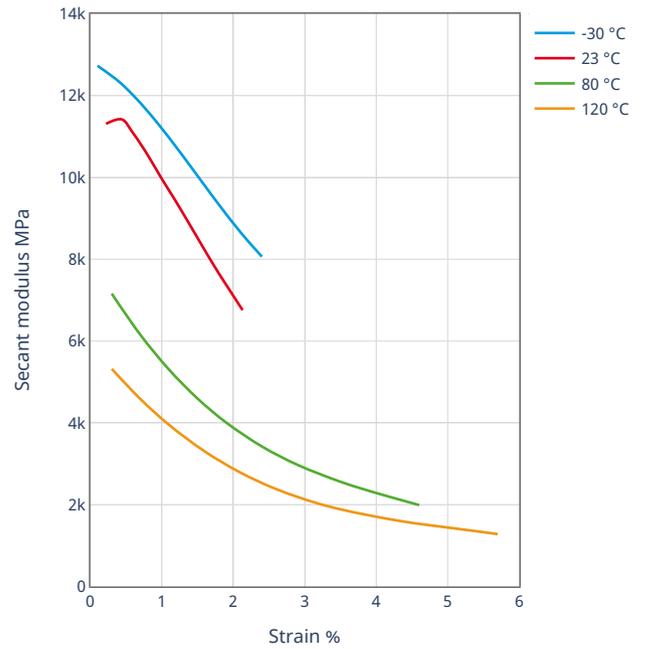
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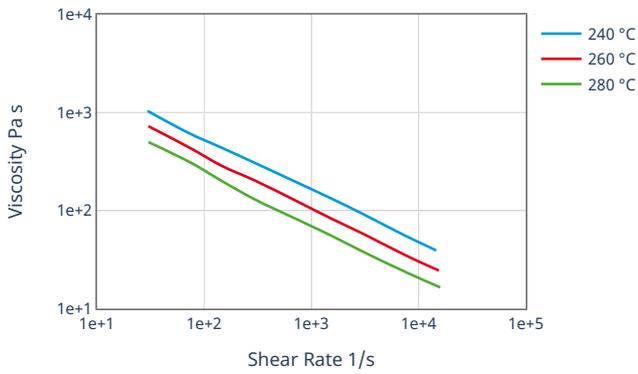
Secant modulus-strain



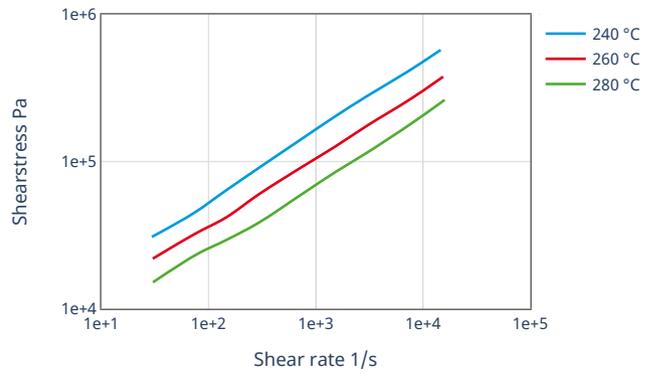
Secant modulus-strain



Viscosity-shear rate

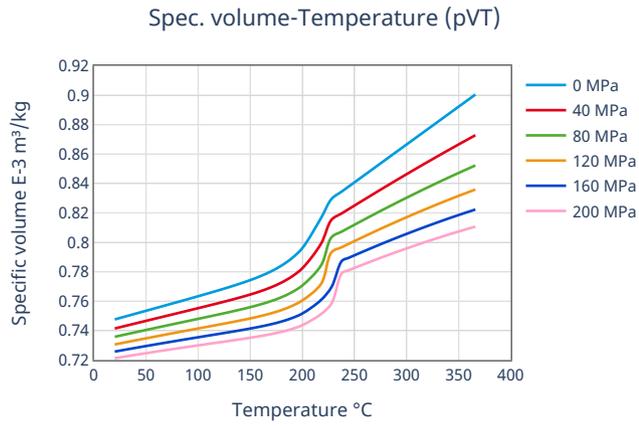


Shearstress-shear rate



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Processing Information

Injection molding

Injection Molding Recommendations