


Akulon® K224-LG6 /E

PA6-GF30

Envalior

Product Texts

30% Glass Reinforced, Injection Molding, Improved UV-stability

ISO 1043 PA6-GF30

| Rheological properties | dry / cond | Unit | Test Standard |
|---|-------------------|-------------|----------------------|
| ISO Data | | | |
| Melt volume-flow rate, MVR | 40 / * | cm³/10min | ISO 1133 |
| Temperature | 275 / * | °C | - |
| Load | 5 / * | kg | - |
| Molding shrinkage, parallel | 0.2 / * | % | ISO 294-4, 2577 |
| Molding shrinkage, normal | 1.1 / * | % | ISO 294-4, 2577 |
| Mechanical properties | | | |
| ISO Data | | | |
| Tensile Modulus | 9800 / 6000 | MPa | ISO 527 |
| Stress at break | 195 / 110 | MPa | ISO 527 |
| Strain at break | 3.6 / 7 | % | ISO 527 |
| Charpy impact strength, +23°C | 90 / 110 | kJ/m² | ISO 179/1eU |
| Charpy impact strength, -30°C | 75 / 75 | kJ/m² | ISO 179/1eU |
| Charpy notched impact strength, +23°C | 12 / 25 | kJ/m² | ISO 179/1eA |
| Charpy notched impact strength, -30°C | 11 / 11 | kJ/m² | ISO 179/1eA |
| Thermal properties | | | |
| ISO Data | | | |
| Melting temperature, 10°C/min | 220 / * | °C | ISO 11357-1/-3 |
| Temp. of deflection under load, 1.80 MPa | 210 / * | °C | ISO 75-1/-2 |
| Temp. of deflection under load, 0.45 MPa | 220 / * | °C | ISO 75-1/-2 |
| Coeff. of linear therm. expansion, parallel | 20 / * | E-6/K | ISO 11359-1/-2 |
| Coeff. of linear therm. expansion, normal | 70 / * | E-6/K | ISO 11359-1/-2 |
| Electrical properties | | | |
| ISO Data | | | |
| Relative permittivity, 100Hz | 3.5 / 20 | - | IEC 62631-2-1 |
| Relative permittivity, 1MHz | 3.3 / 5 | - | IEC 62631-2-1 |
| Dissipation factor, 100Hz | 50 / 3000 | E-4 | IEC 62631-2-1 |
| Dissipation factor, 1MHz | 150 / 1200 | E-4 | IEC 62631-2-1 |
| Volume resistivity | 1E12 / 1E10 | Ohm*m | IEC 62631-3-1 |
| Surface resistivity | * / 1E13 | Ohm | IEC 62631-3-2 |
| Electric strength | 30 / 25 | kV/mm | IEC 60243-1 |
| Comparative tracking index | - / 500 | - | IEC 60112 |
| Other properties | | | |
| ISO Data | | | |
| Water absorption | 6.3 / * | % | Sim. to ISO 62 |
| Humidity absorption | 1.9 / * | % | Sim. to ISO 62 |
| Density | 1350 / - | kg/m³ | ISO 1183 |
| Rheological calculation properties | | | |
| ISO Data | | | |
| Density of melt | 1150 | kg/m³ | - |
| Thermal conductivity of melt | 0.27 | W/(m K) | - |
| Spec. heat capacity of melt | 2110 | J/(kg K) | - |

Eff. thermal diffusivity

1.12E-7

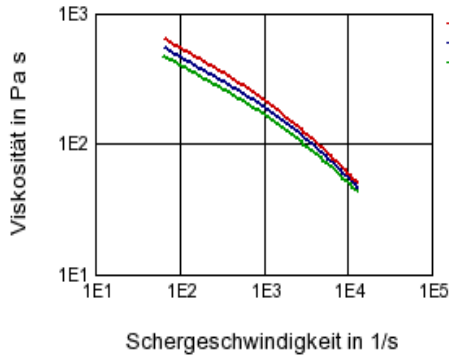
m²/s

-

Diagrams

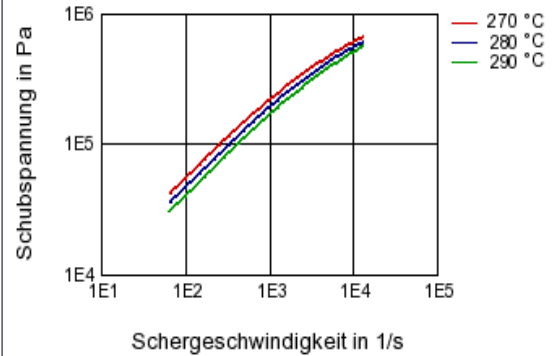
Viscosity-shear rate

Viskosität-Schergeschwindigkeit
Akulon® K224-LG6 /E (->Akulon® K224-G6)



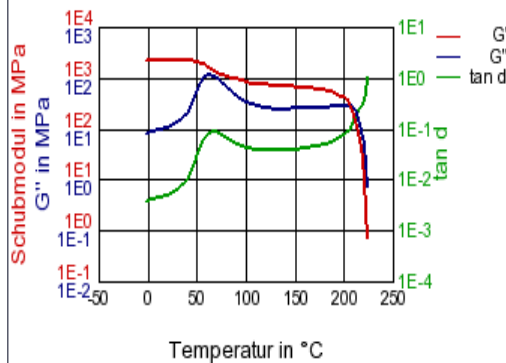
Shearstress-shear rate

Schubspannung-Schergeschwindigkeit
Akulon® K224-LG6 /E (->Akulon® K224-G6)



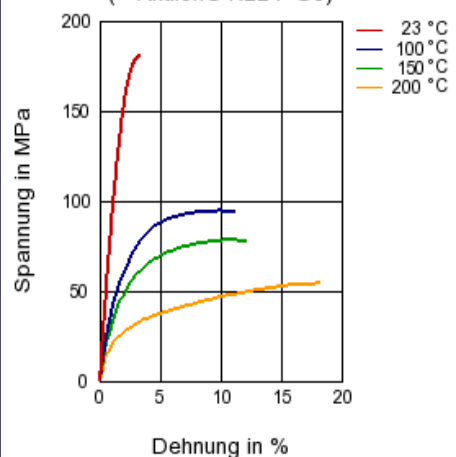
Dynamic Shear modulus-temperature

Dynamischer Schubmodul-Temperatur
Akulon® K224-LG6 /E (tr.)

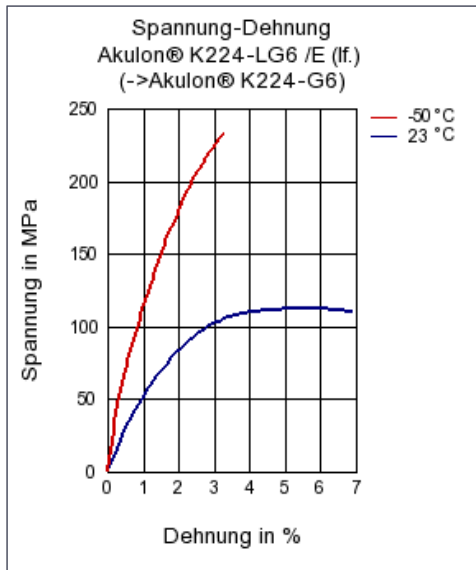


Stress-strain

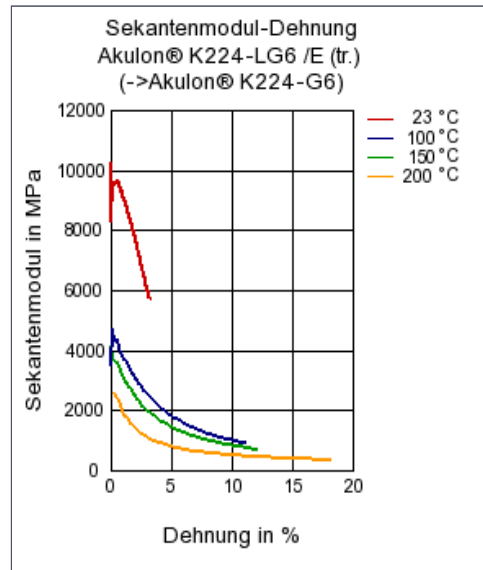
Spannung-Dehnung
Akulon® K224-LG6 /E (tr.)
(->Akulon® K224-G6)



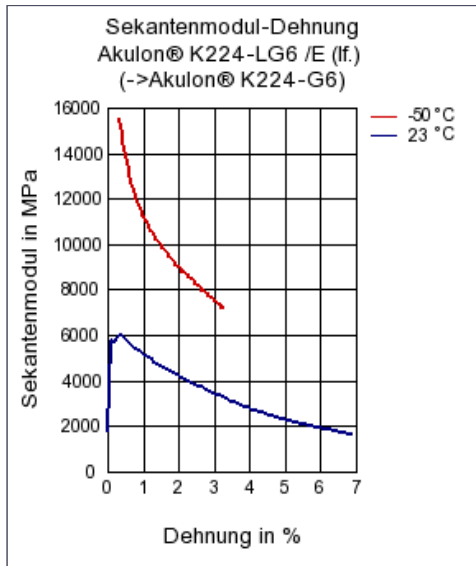
Stress-strain



Secant modulus-strain



Secant modulus-strain



Characteristics

Processing

Injection Molding

Additives

Release agent

Delivery form

Pellets

Special Characteristics

U.V. stabilized or stable to weather, Heat stabilized or stable to heat

Other text information

Injection Molding

[Injection Molding Recommendations](#)

[Steel recommendations for molds screws and barrels](#)

[Trouble shooting guideline for injection molding](#)

Chemical Media Resistance

Alcohols

☺ Methanol (23 °C)

☺ Ethanol (23 °C)

Hydrocarbons

☺ Toluene (23°C)

Ketones

😊 Acetone (23°C)

Ethers

😊 Diethyl ether (23°C)

Other

😊 Ethyl Acetate (23°C)

Water (23°C)