# Akulon® K224-PG6

PA6-I-GF30 — DSM Engineering Plastics

## Product Texts

30% Glass Reinforced, Impact Modified

ISO 1043 PA6-I-GF30

Akulon website

| Rheological properties | dry / cond | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Melt volume-flow rate, MVR | 20 / * | cm³/10min | ISO 1133 |
| Temperature | 275 / * | °C | ISO 1133 |
| Load | 5 / * | kg | ISO 1133 |
| Molding shrinkage, parallel | 0.4 / * | % | ISO 294-4, 2577 |
| Molding shrinkage, normal | 1.0 / * | % | ISO 294-4, 2577 |

| Mechanical properties | dry / cond | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Tensile Modulus | 8500 / 5500 | MPa | ISO 527-1/-2 |
| Stress at break | 145 / 100 | MPa | ISO 527-1/-2 |
| Strain at break | 4.5 / 9 | % | ISO 527-1/-2 |
| Charpy impact strength (+23°C) | 95 / 110 | kJ/m² | ISO 179/1eU |
| Charpy impact strength, -30°C | 100 / 100 | kJ/m² | ISO 179/1eU |
| Charpy notched impact strength (+23°C) | 23 / 43 | kJ/m² | ISO 179/1eA |
| Charpy notched impact strength, -30°C | 15 / 15 | kJ/m² | ISO 179/1eA |

| Thermal properties | dry / cond | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Temp. of deflection under load (1.80 MPa) | 200 / * | °C | ISO 75-1/-2 |
| Temp. of deflection under load (0.45 MPa) | 215 / * | °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 | 90 / * | E-6/K | ISO 11359-1/-2 |
| Burning behav. at 1.5 mm nom. thickn. | HB / * | class | IEC 60695-11-10 |
| Thickness tested | 1.6 / * | mm | IEC 60695-11-10 |

| Electrical properties | dry / cond | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Relative permittivity, 100Hz | 3.8 / 14 | - | IEC 60250 |
| Relative permittivity, 1MHz | 3.5 / 4.5 | - | IEC 60250 |
| Dissipation factor, 100Hz | 90 / 3000 | E-4 | IEC 60250 |
| Dissipation factor, 1MHz | 150 / 1200 | E-4 | IEC 60250 |
| Volume resistivity | 1E13 / 1E11 | Ohm*m | IEC 60093 |
| Surface resistivity | * / 1E14 | Ohm | IEC 60093 |
| Electric strength | 25 / 20 | kV/mm | IEC 60243-1 |
| Comparative tracking index | - / 600 | - | IEC 60112 |

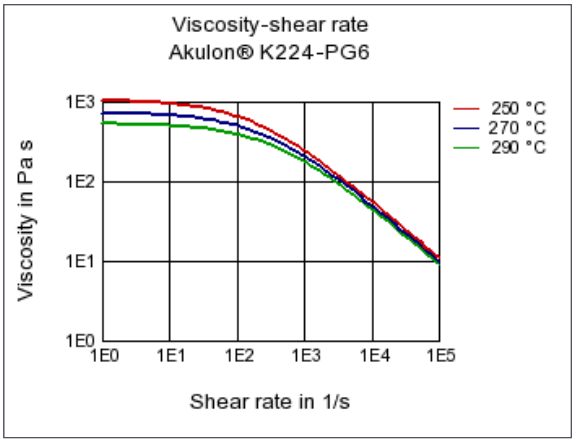
| Other properties | dry / cond | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Water absorption | 5.7 / * | % | Sim. to ISO 62 |
| Humidity absorption | 1.7 / * | % | Sim. to ISO 62 |
| Density | 1320 / - | kg/m³ | ISO 1183 |

| Rheological calculation properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Density of melt | 1110 | kg/m³ | - |

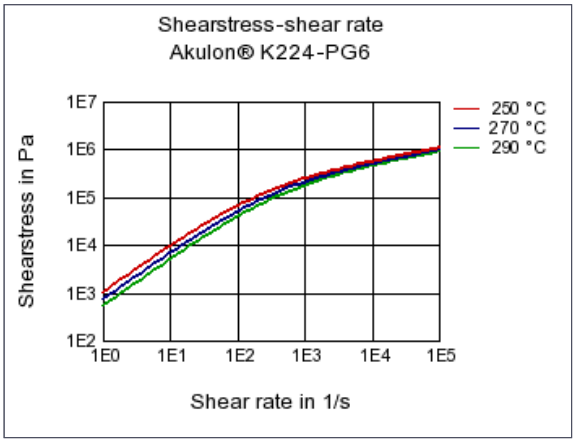
| | | | |
|---|---|---|---|
| Thermal conductivity of melt | 0.28 | W/(m K) | - |
| Spec. heat capacity of melt | 2830 | J/(kg K) | - |
| Eff. thermal diffusivity | 8.99E-8 | m²/s | - |

## Diagrams

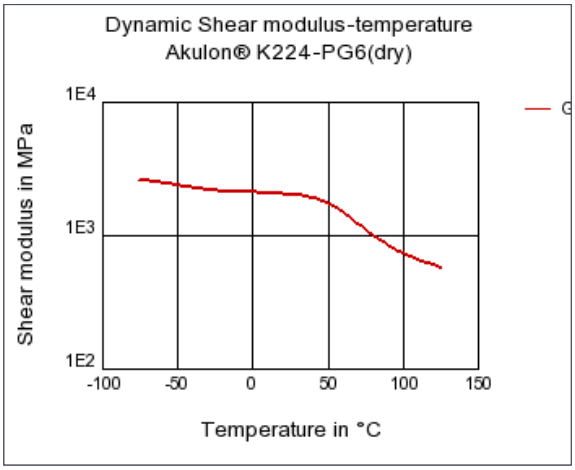
### Viscosity-shear rate



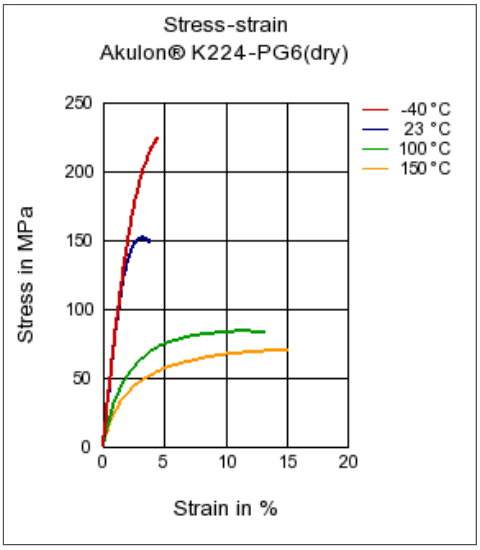

### Shearstress-shear rate



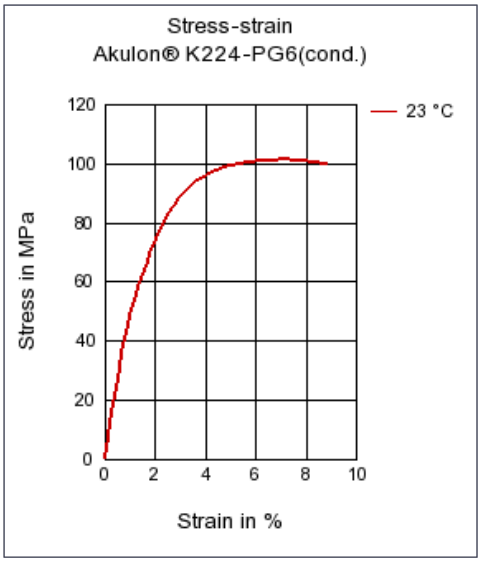

### Dynamic Shear modulus-temperature



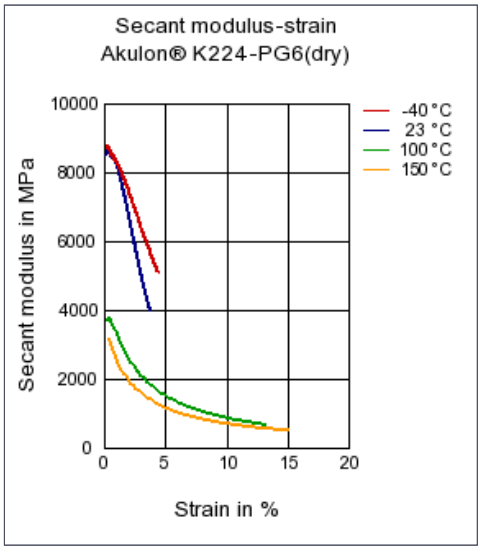

### Stress-strain



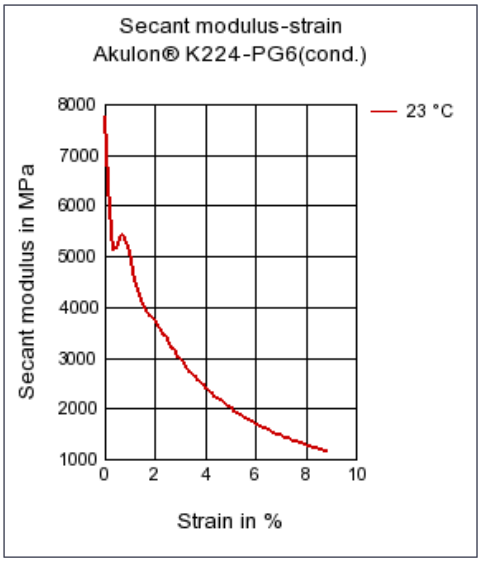
## Stress-strain



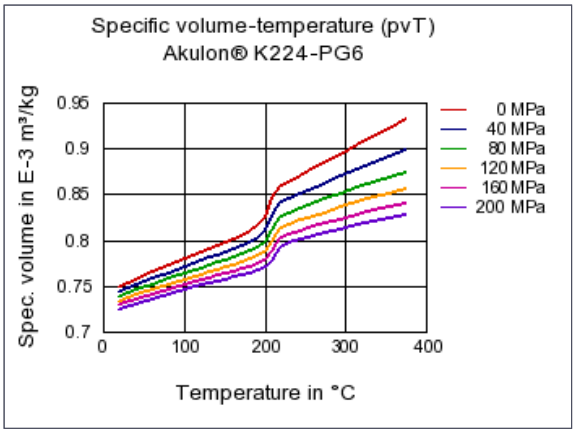

## Secant modulus-strain




## Secant modulus-strain




## Specific volume-temperature (pvT)




## Characteristics

### Processing
Injection Molding

### Additives
Release agent

### Delivery form
Pellets

### Special Characteristics
High impact or impact modified

## Other text information

### Injection Molding
Injection Molding Recommendations