

KEPITAL® F40-34

An Ultra low-viscosity grade for general injection molding

- A standard unfilled and extra easy-flowing (ultra low-viscosity) grade for general injection molding
- Suitable for multi-cavity molds and thin-walled precision parts

Rheological properties

Moulding shrinkage range, parallel	2.0 %	ISO 294-4, 2577
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Typical mechanical properties

Tensile Modulus	2900 MPa	ISO 527-1/-2
Yield stress, 50mm/min	65 MPa	ISO 527-1/-2
Yield strain, 50mm/min	7 %	ISO 527-1/-2
Nominal strain at break	13 %	ISO 527-1/-2
Flexural Modulus	2700 MPa	ISO 178
Flexural Strength	93 MPa	ISO 178
Charpy notched impact strength, 23°C	3.5 kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	2.2 kJ/m ²	ISO 179/1eA
Poisson's ratio	0.418	

Thermal properties

Melting temperature, 10°C/min	165 °C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	101 °C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	120 E-6/K	ISO 11359-1/-2

Electrical properties

Volume resistivity	1E12 Ohm.m	IEC 62631-3-1
Surface resistivity	1E16 Ohm	IEC 62631-3-2
Electric strength	19 kV/mm	IEC 60243-1

Other properties

Humidity absorption, 2mm	0.2 %	Sim. to ISO 62
Density	1410 kg/m ³	ISO 1183

Injection

Drying Temperature	80 - 90 °C
Drying Time, Dehumidified Dryer	3 - 4 h
Processing Moisture Content	0.1 %
Max. mould temperature	60 - 80 °C
Back pressure	2 MPa

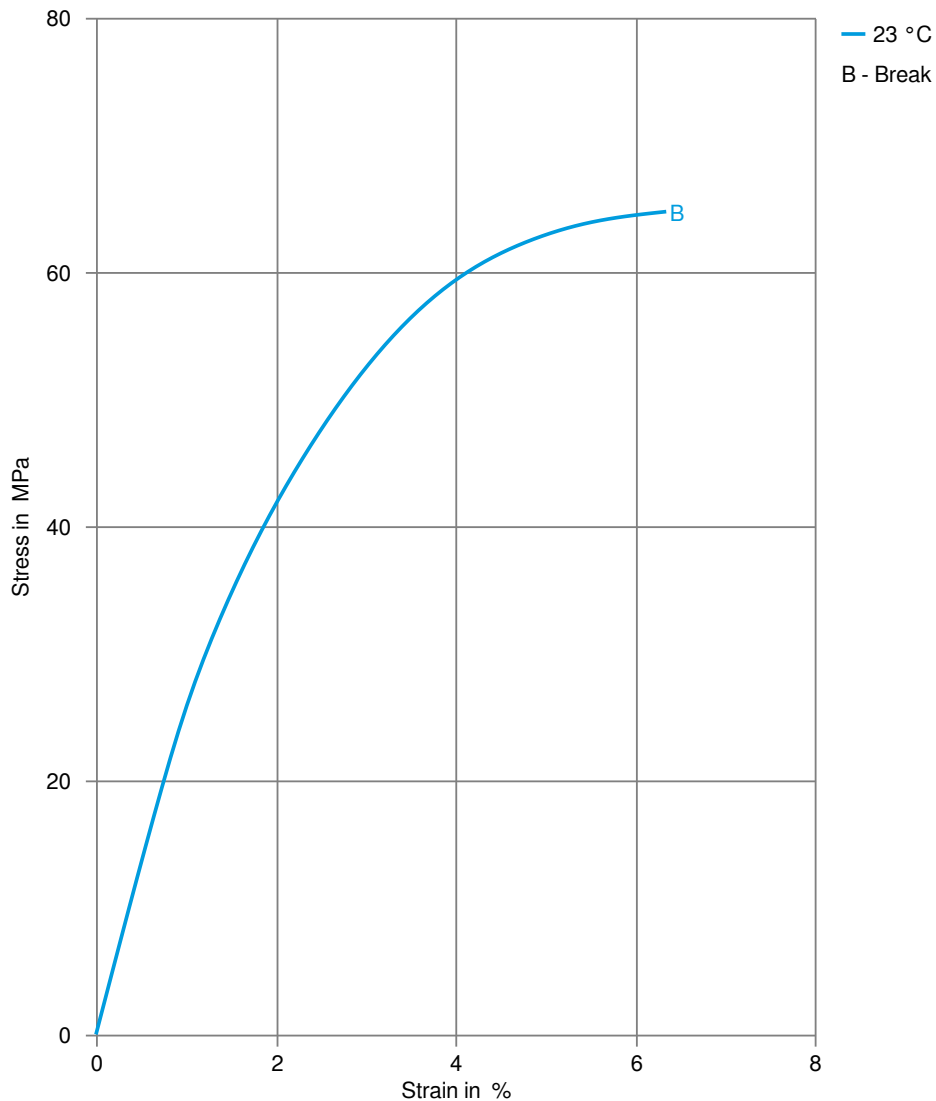
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Additional information

Injection molding

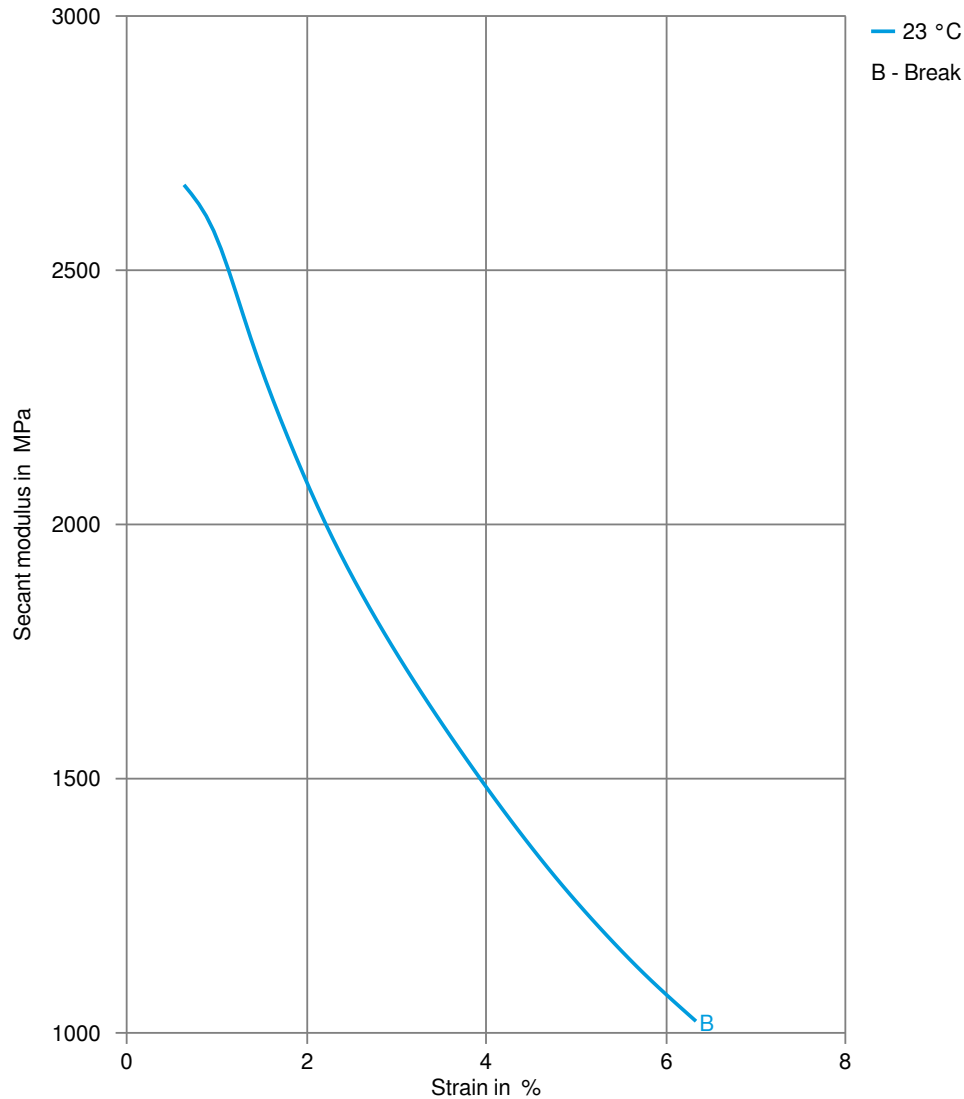
mold temperature: 60°C ~ 80°C (140°F ~ 160°F)
barrel temperature: 170°C ~ 210°C (338°F ~ 410°F)
screw speed: 150mm/s ~ 200mm/s
back pressure: max. 20bar

Stress-strain



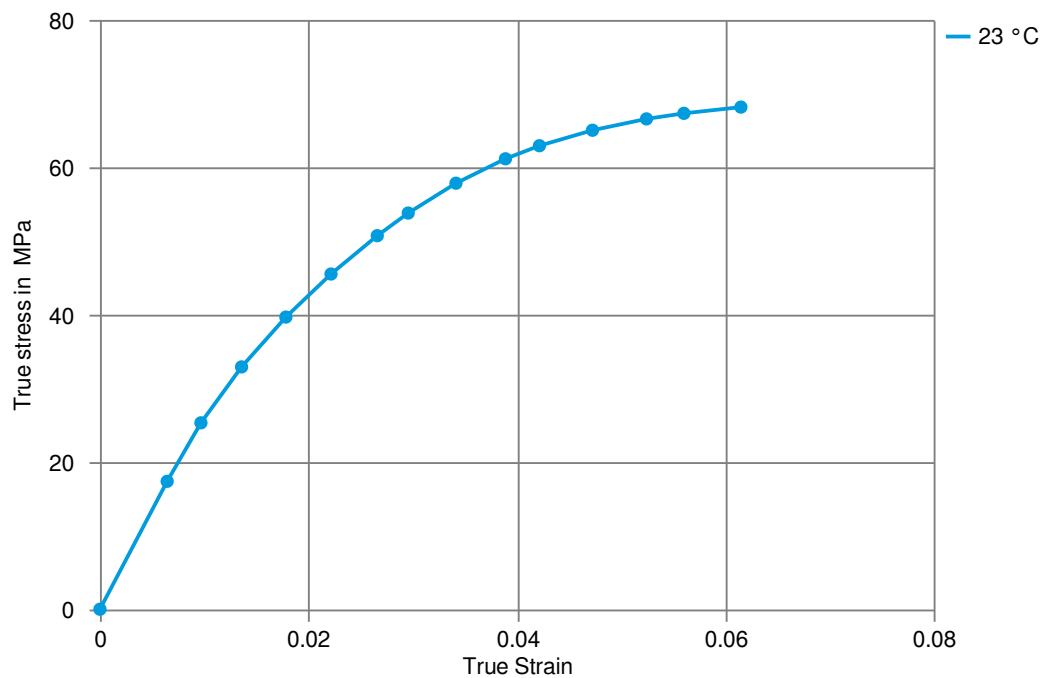
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Secant modulus-strain



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True stress-strain



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Processing Texts

Pre-drying

suggested pre-drying condition: 80 °C ~ 90 °C (176°F ~ 194°F) 3 h ~ 4 h
suggested max. moisture: 0.1%

Injection molding

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back pressure: max. 20bar
