

FORTRON® FX32T4L

Polyphenylene sulfide

Fortron FX32T4L is an impact modified, injection moldable grade. It is a lubricated version of FX32T4

Product information

Resin Identification	PPS	ISO 1043
Part Marking Code	>PPS<	ISO 11469

Rheological properties

Melt mass-flow rate	27 g/10min	ISO 1133
Melt mass-flow rate, Temperature	310 °C	
Melt mass-flow rate, Load	2.16 kg	
Moulding shrinkage, parallel	2.0 %	ISO 294-4, 2577
Moulding shrinkage, normal	2.0 %	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	2200 MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	55 MPa	ISO 527-1/-2
Tensile strain at yield, 50mm/min	4.7 %	ISO 527-1/-2
Tensile stress at break, 50mm/min	46 MPa	ISO 527-1/-2
Tensile strain at break, 50mm/min	30 %	ISO 527-1/-2
Flexural modulus	2200 MPa	ISO 178
Flexural strength	68 MPa	ISO 178
Charpy notched impact strength, 23°C	10 kJ/m ²	ISO 179/1eA
Poisson's ratio	0.382	

Thermal properties

Melting temperature, 10°C/min	280 °C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	100 °C	ISO 75-1/-2

Physical/Other properties

Density	1230 kg/m ³	ISO 1183
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Injection

Drying Recommended	yes
Drying Temperature	130 °C
Drying Time, Dehumidified Dryer	2 - 4 h
Processing Moisture Content	≤0.02 %
Melt Temperature Optimum	330 °C
Min. melt temperature	310 °C
Max. melt temperature	340 °C
Screw tangential speed	0.2 - 0.3 m/s
Mold Temperature Optimum	120 °C
Min. mould temperature	80 °C
Max. mould temperature	160 °C
Hold pressure range	30 - 70 MPa
Back pressure	3.5 MPa

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Characteristics

Processing

Injection Moulding

Special characteristics

High impact or impact modified

Additional information

Injection molding

Processing

Injection Molding:

Drying – alternate 80°C, approx. 6 hours

Mold surface temperature – a wide range of 30°C to 135°C is possible. Highest crystallinity will often be achieved at higher mold temperature. Depending on the part design, improved surface appearance and demolding may be achieved at 50°C to 70°C.

Processing Notes

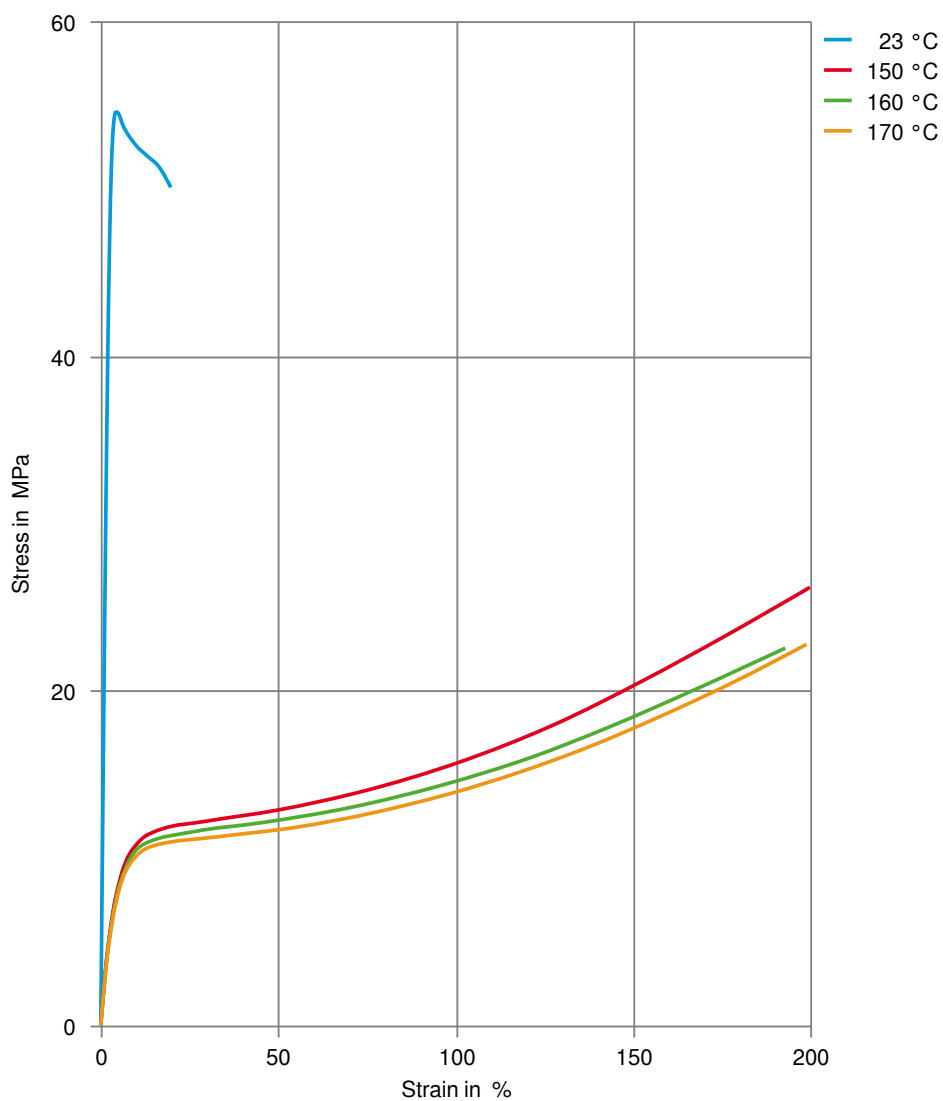
Pre-Drying

Fortron® should in principle be predried. Because of the necessary low maximum residual moisture content, the use of dry air dryers is recommended. The dew point should be < -30°C. The time between drying and processing should be as short as possible.

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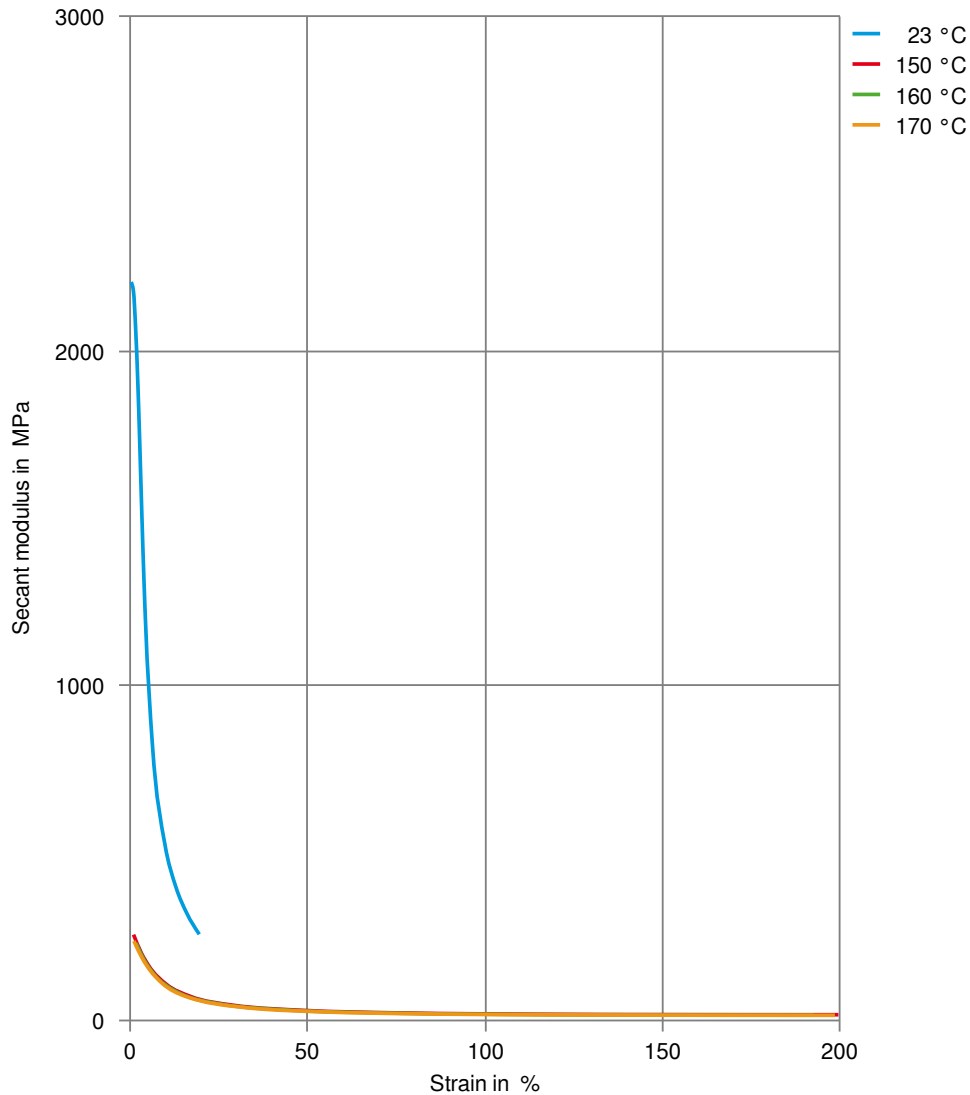
Stress-strain



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Secant modulus-strain



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