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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/m²	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/m³	ISO 1183

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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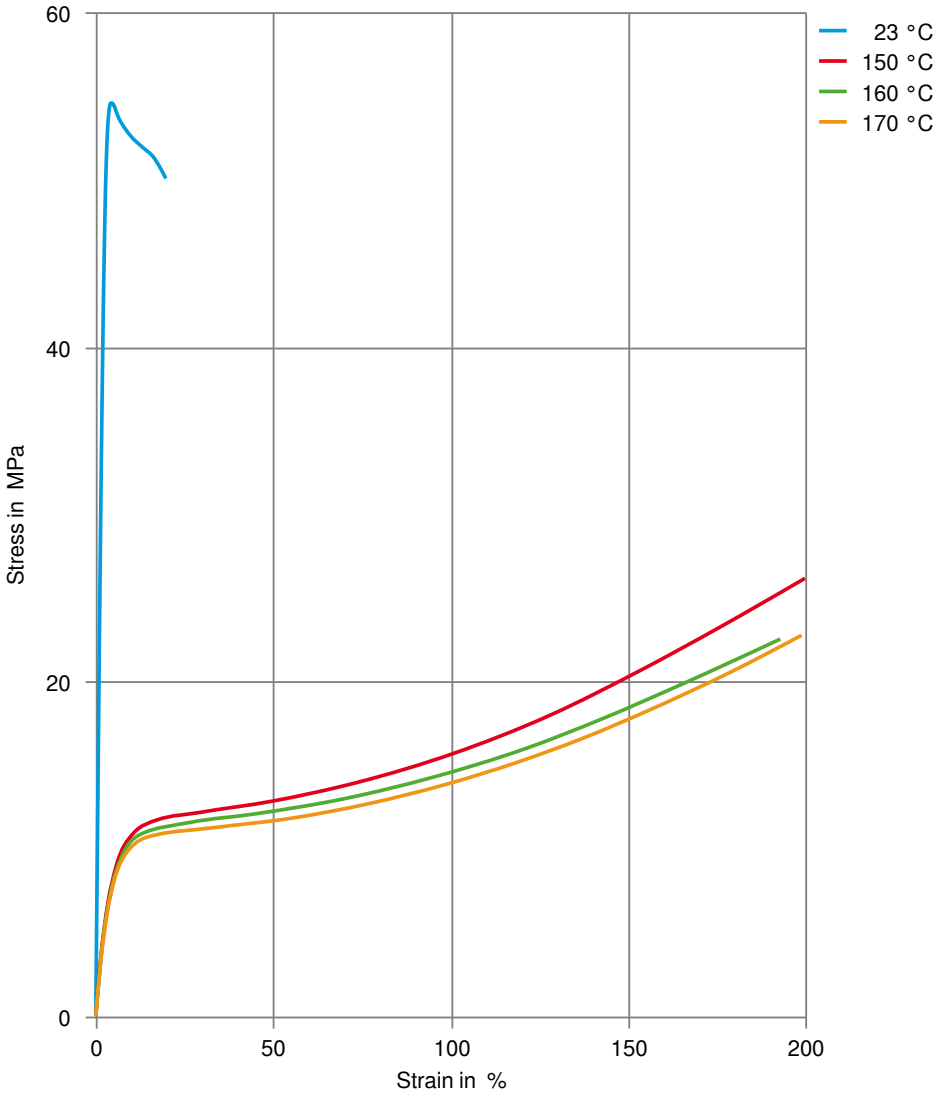
Stress-strain



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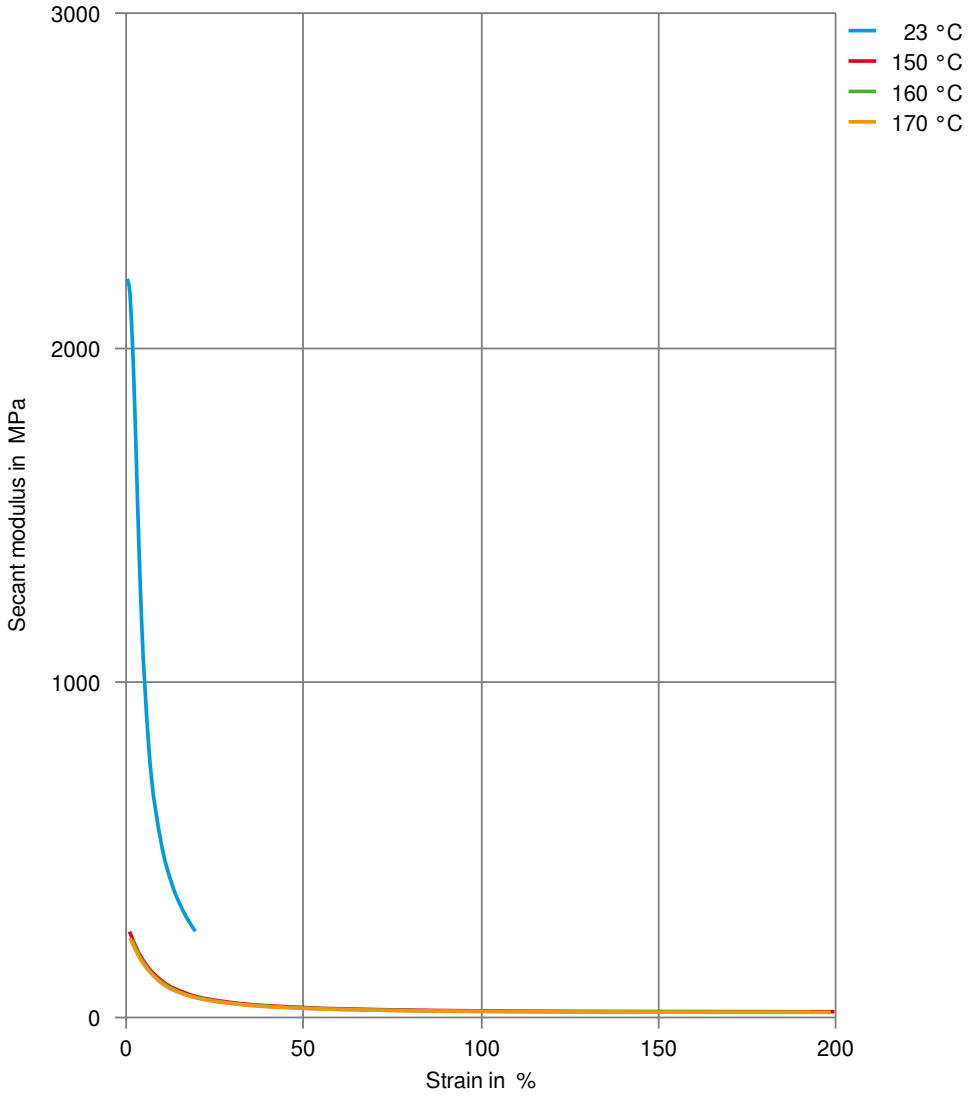
Secant modulus-strain



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