

FORTRON® FX72T6

Polyphenylene sulfide

Fortron® FX72T6 is an unreinforced, impact modified PPS with high flowability and high impact resistance suitable for injection molding.

The mechanical properties reported on this data sheet refer to a mold wall temperature of 135°C.

Product information

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

Rheological properties

Melt mass-flow rate	35 g/10min	ISO 1133
Melt mass-flow rate, Temperature	310 °C	
Melt mass-flow rate, Load	2.16 kg	
Moulding shrinkage, parallel	1.3 %	ISO 294-4, 2577
Moulding shrinkage, normal	1.3 %	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	1680 MPa	ISO 527-1/-2
Tensile stress at break, 50mm/min	40 MPa	ISO 527-1/-2
Tensile strain at break, 50mm/min	20 %	ISO 527-1/-2
Flexural modulus	1700 MPa	ISO 178
Charpy impact strength, 23°C	N kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	10 kJ/m ²	ISO 179/1eA
Izod notched impact strength, 23°C	10 kJ/m ²	ISO 180/1A
Izod impact strength, 23°C	N kJ/m ²	ISO 180/1U
Poisson's ratio	0.411	

Thermal properties

Temperature of deflection under load, 1.8 MPa	100 °C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	122 °C	ISO 306

Flammability

Burning Behav. at thickness h	V-0 class	IEC 60695-11-10
Thickness tested	3 mm	IEC 60695-11-10
Oxygen index	48.5 %	ISO 4589-1/-2

Electrical properties

Relative permittivity, 1MHz	3.1	IEC 62631-2-1
Dissipation factor, 1MHz	3 E-4	IEC 62631-2-1

Physical/Other properties

Density	1180 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	150 °C
Min. mould temperature	140 °C
Max. mould temperature	160 °C
Hold pressure range	30 - 70 MPa
Back pressure	3.5 MPa
Ejection temperature	225 °C

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

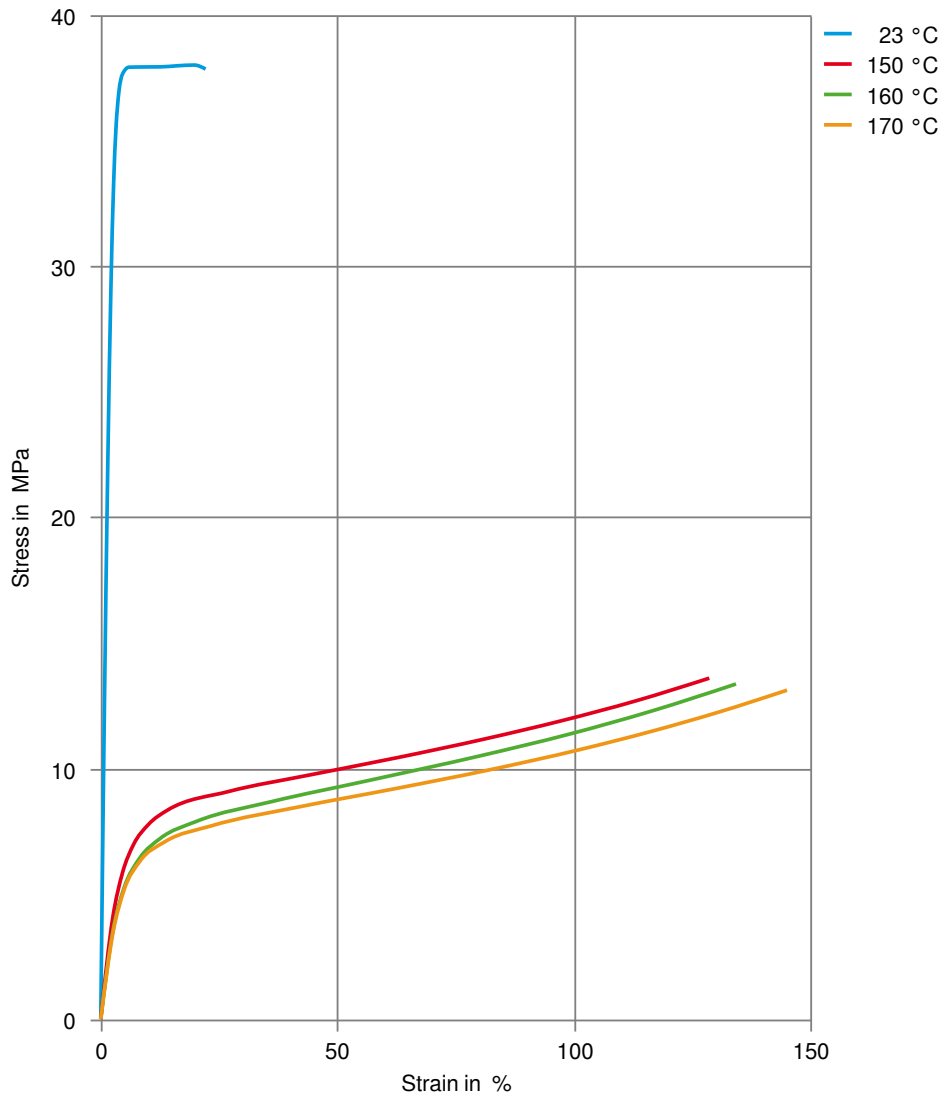
Pre-Drying

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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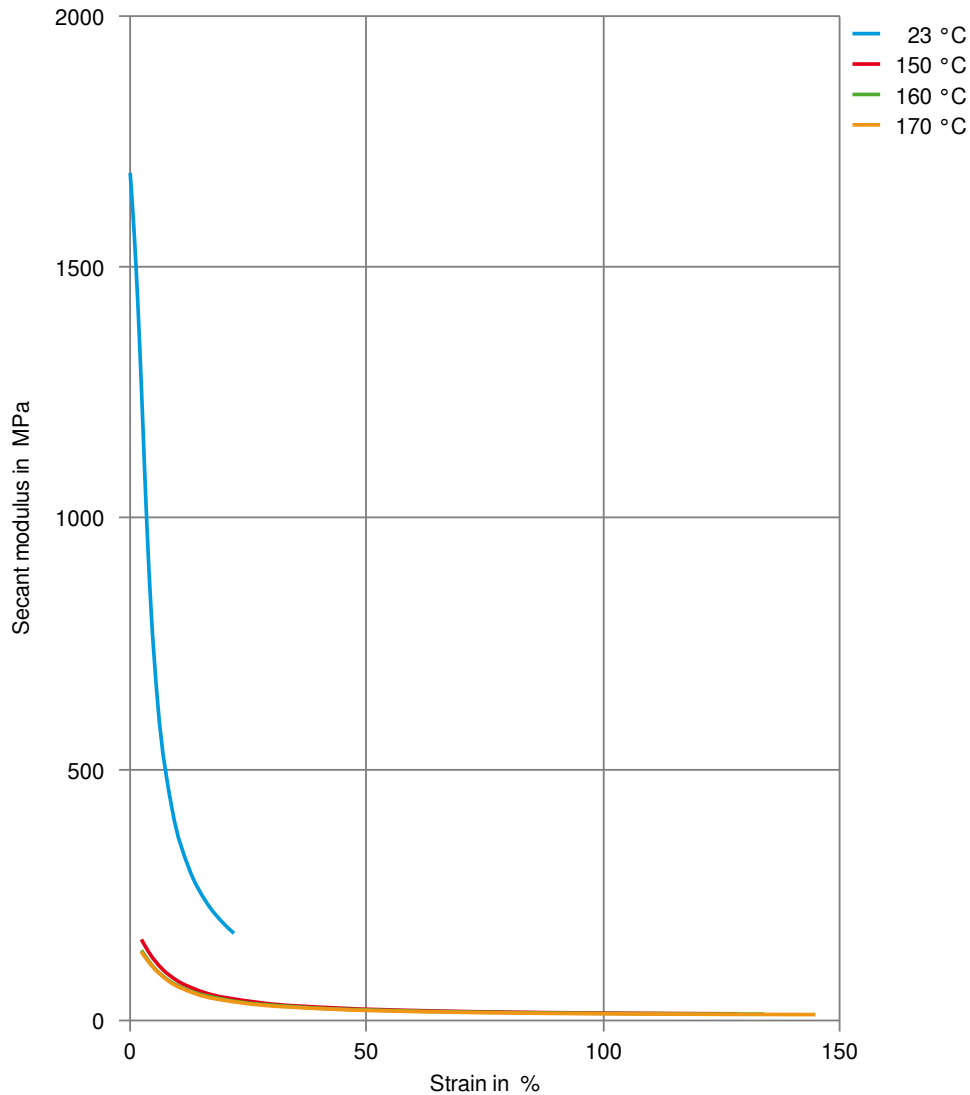
Stress-strain



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Secant modulus-strain



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