

FORTRON® FX650T6

Polyphenylene sulfide

Fortron FX650T6 is a 50% glass-fiber and mineral reinforced grade with improved impact and heat shock resistance.

Product information

Resin Identification	PPS-(GF+MD)5 0	ISO 1043
Part Marking Code	>PPS-(GF+MD)50<	ISO 11469

Rheological properties

Moulding shrinkage, parallel	0.3 %	ISO 294-4, 2577
Moulding shrinkage, normal	0.5 %	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	12200 MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	130 MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2 %	ISO 527-1/-2
Flexural modulus	12000 MPa	ISO 178
Flexural strength	180 MPa	ISO 178
Charpy impact strength, 23°C	41.5 kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	47.7 kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	9 kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	8 kJ/m ²	ISO 179/1eA
Poisson's ratio	0.33 ^[C]	

[C]: Calculated

Thermal properties

Melting temperature, 10°C/min	280 °C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	270 °C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	15 E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	50 E-6/K	ISO 11359-1/-2

Electrical properties

Volume resistivity	>1E13 Ohm.m	IEC 62631-3-1
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Physical/Other properties

Water absorption, 2mm	0.07 %	Sim. to ISO 62
Density	1700 kg/m ³	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

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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
Ejection temperature	220 °C

Additional information

Processing Notes

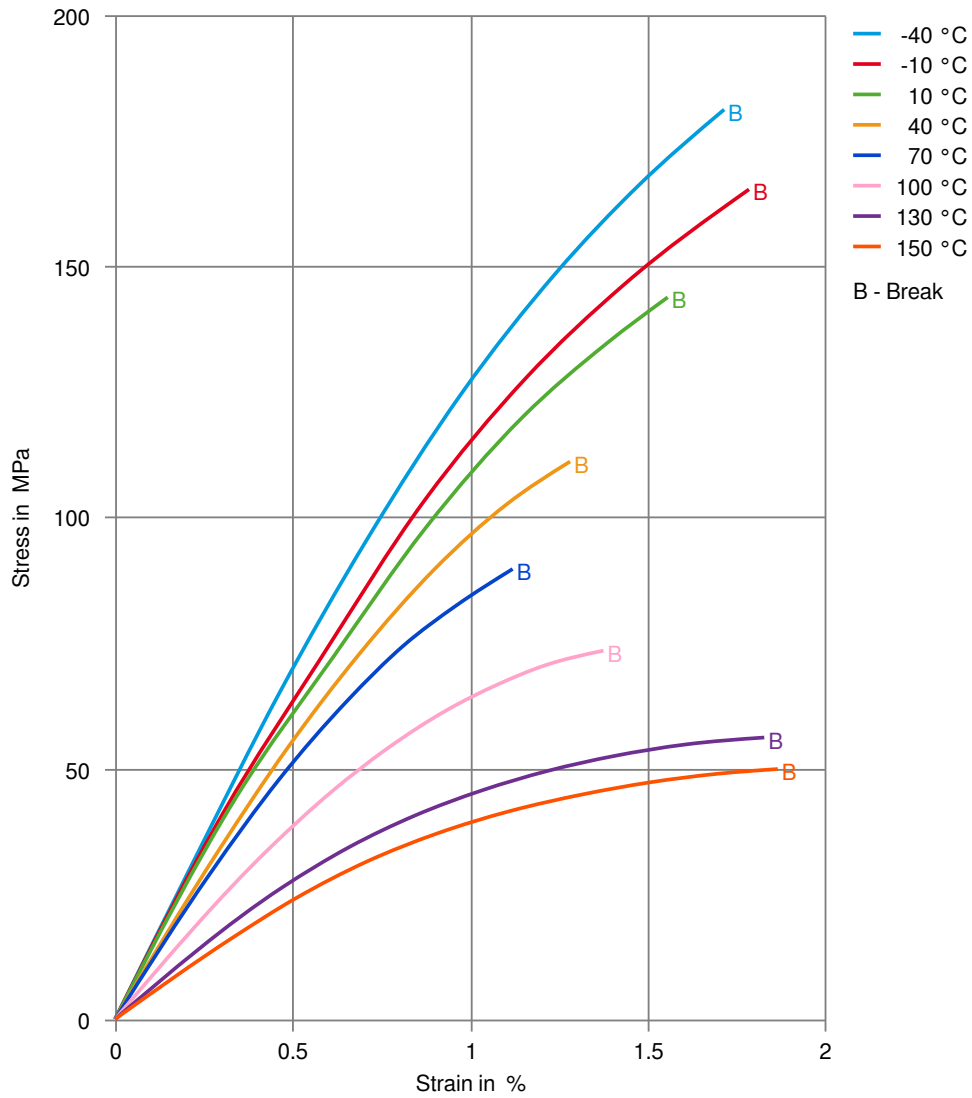
Pre-Drying

Fortron should, in principle, be pre-dried. 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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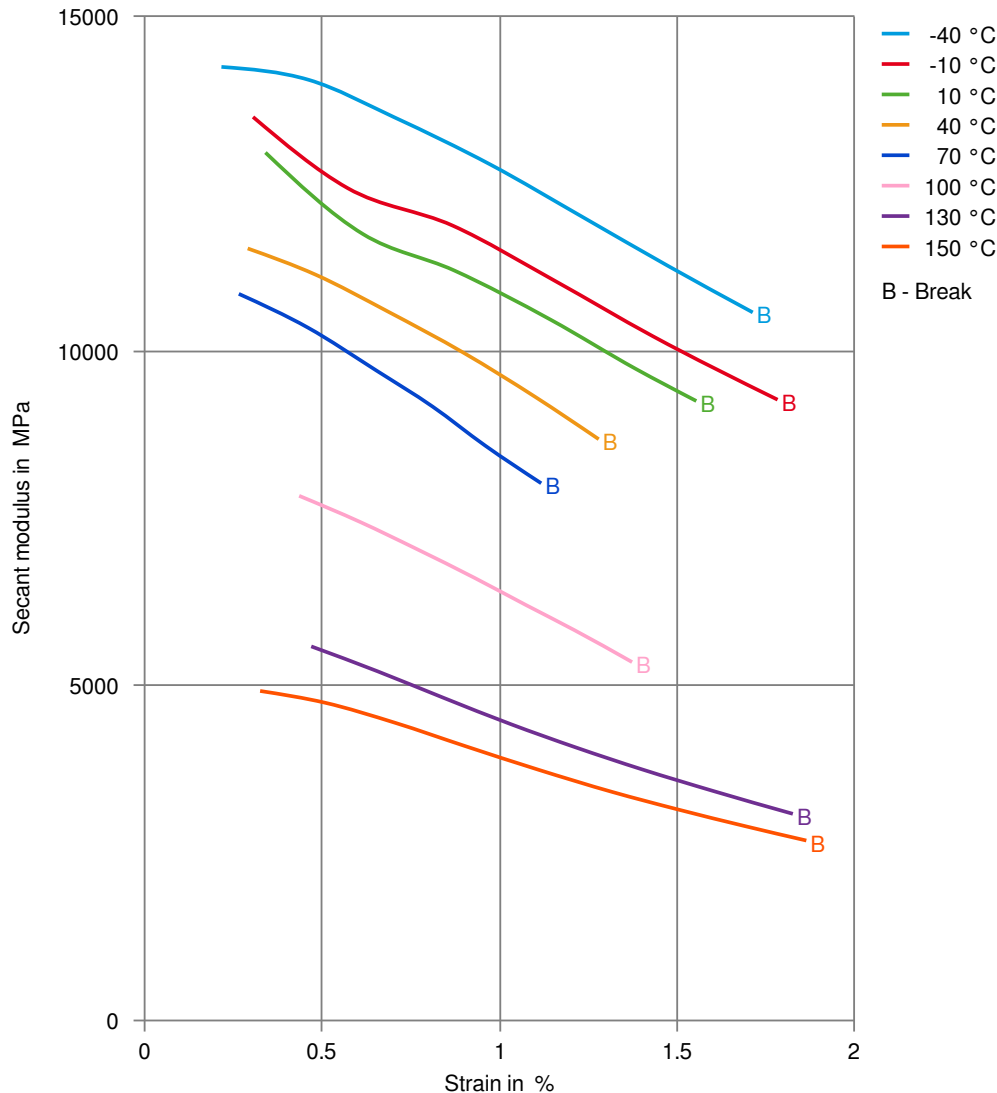
Stress-strain



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Secant modulus-strain



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