

FORTRON® 1140T4

Polyphenylene sulfide

Fortron® 1140T4 is a 40% glass filled, impact modified grade for injection molding with good thermal shock resistance.

Product information

Resin Identification	PPS-I-GF40	ISO 1043
Part Marking Code	>PPS-I-GF40<	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	14500 MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	185 MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.1 %	ISO 527-1/-2
Flexural modulus	14500 MPa	ISO 178
Flexural strength	270 MPa	ISO 178
Charpy impact strength, 23°C	60 kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	50 kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	14 kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	12 kJ/m ²	ISO 179/1eA
Izod notched impact strength, 23°C	14 kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C	12.0 kJ/m ²	ISO 180/1A
Izod impact strength, 23°C	55 kJ/m ²	ISO 180/1U
Izod impact strength, -30°C	50 kJ/m ²	ISO 180/1U
Poisson's ratio	0.33 ^[C]	

[C]: Calculated

Thermal properties

Melting temperature, 10°C/min	280 °C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	90 °C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	265 °C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	16 E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	48 E-6/K	ISO 11359-1/-2

Flammability

Burning Behav. at thickness h	V-0 class	IEC 60695-11-10
Thickness tested	0.8 mm	IEC 60695-11-10
Glow Wire Flammability Index, 1.0mm	960 ^[OT, 1] °C	IEC 60695-2-12
Glow Wire Flammability Index, 2.0mm	960 ^[OT, 1] °C	IEC 60695-2-12
Glow Wire Ignition Temperature, 1.0mm	825 ^[OT, 1] °C	IEC 60695-2-13
Glow Wire Ignition Temperature, 2.0mm	850 ^[OT, 1] °C	IEC 60695-2-13

[OT]: One time tested

[1]: SR 01407629

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Electrical properties

Volume resistivity	>1E13 Ohm.m	IEC 62631-3-1
Surface resistivity	>1E15 Ohm	IEC 62631-3-2
Electric strength	20 kV/mm	IEC 60243-1

Physical/Other properties

Density	1610 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 MPa
Ejection temperature	213 °C

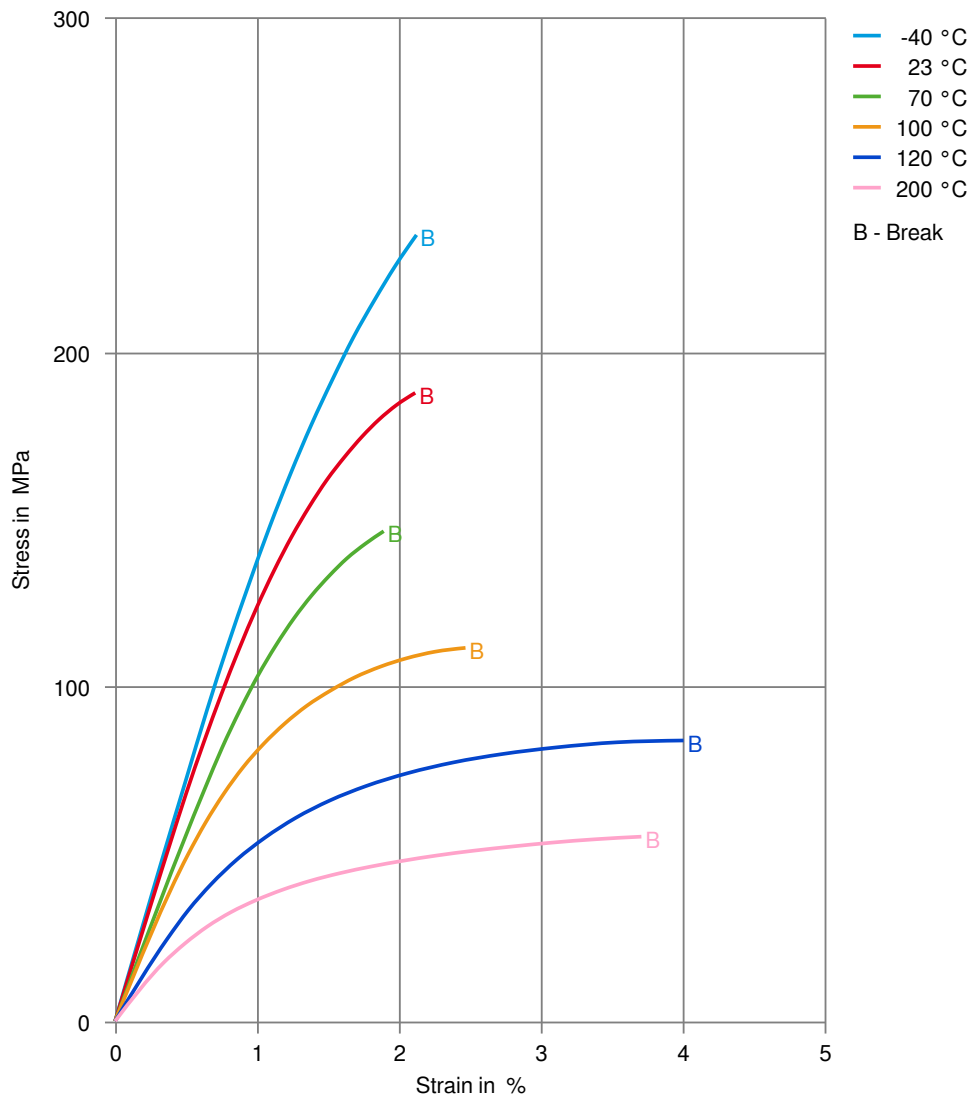
Characteristics

Processing	Injection Moulding
Special characteristics	High impact or impact modified, Thermal shock resistant

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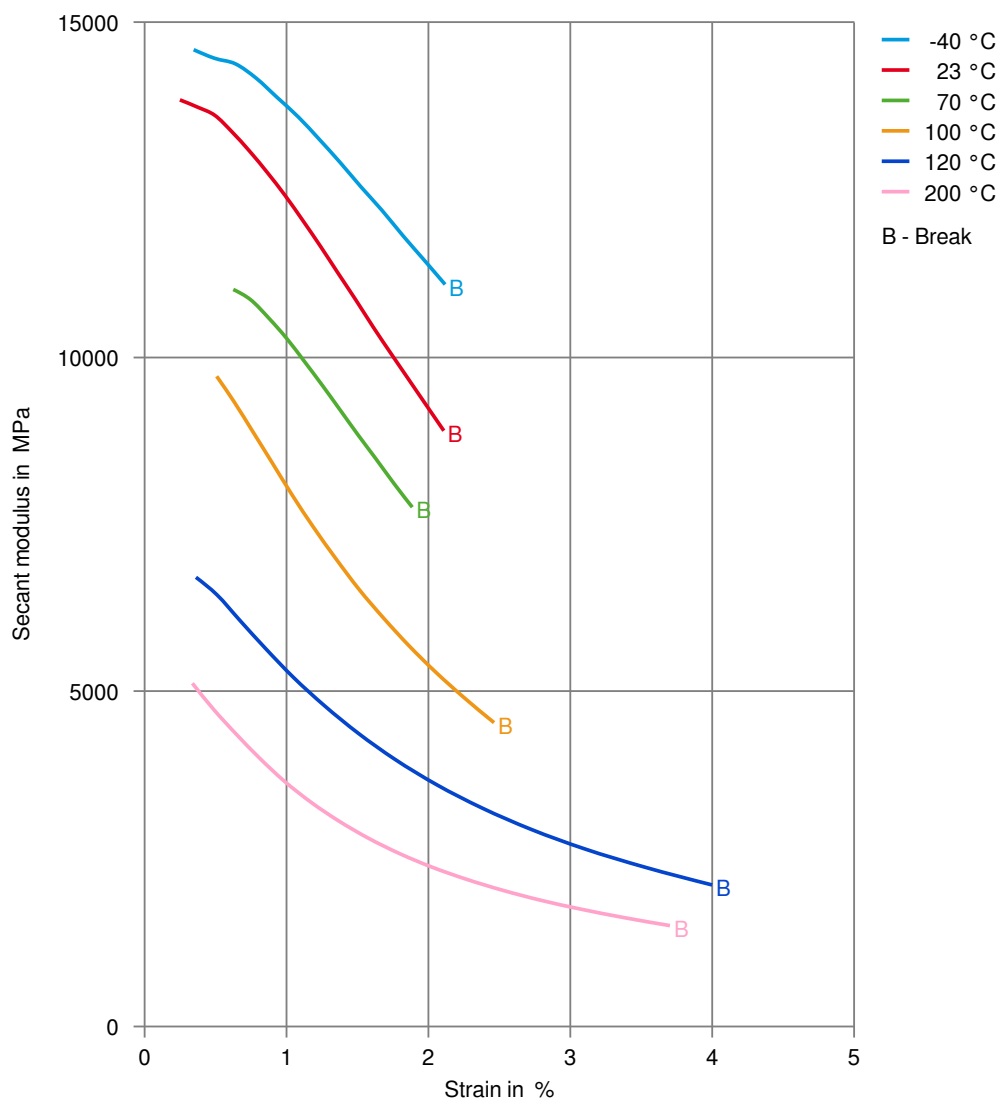
Stress-strain



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Secant modulus-strain



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