Celanese
The chemistry inside innovation™

FORTRON® 1115L0

Polyphenylene sulfide

Fortron® 1115L0 is a 15% fiberglass-reinforced grade of polyphenylene sulfide with high melt strength suitable for blow molding and extrusion applications.

The recommended processing conditions are similar to those of our standard grades, except drying conditions are somewhat milder at 80 to 100 C for 3-4 hours.

Product information

Resin Identification	PPS-GF15	ISO 1043
Part Marking Code	>PPS-GF15<	ISO 11469

Typical mechanical properties

Tensile modulus	7700	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	120	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2	%	ISO 527-1/-2
Flexural modulus	7500	MPa	ISO 178
Flexural strength	200	MPa	ISO 178
Charpy impact strength, 23°C	32	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	5	kJ/m²	ISO 179/1eA
Izod notched impact strength, 23°C	5.2	kJ/m²	ISO 180/1A
Ball indentation hardness, H 961/30	227	MPa	ISO 2039-1
Poisson's ratio	0.38		

Thermal properties

Temperature of deflection under load, 1.8 MPa	220	°C	ISO 75-1/-2
Temperature of deflection under load, 8 MPa	115	°C	ISO 75-1/-2

Flammability

Burning Behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	0.75	mm	IEC 60695-11-10

Electrical properties

Surface resistivity	>1E15	Ohm	IEC 62631-3-2

Physical/Other properties

Water absorption, 2mm	0.02	%	Sim. to ISO 62
Density	1440	kg/m³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	100	°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

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Min. mould temperature	140	°C
Max. mould temperature	160	°C
Hold pressure range	30 - 70	MPa
Back pressure	3	MPa

Additional information

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.

Storage

For subsequent storage the material should be stored dry in the dryer until processed (<= 60 h).

Processing Notes

The higher drying conditions result in higher melt vicosity

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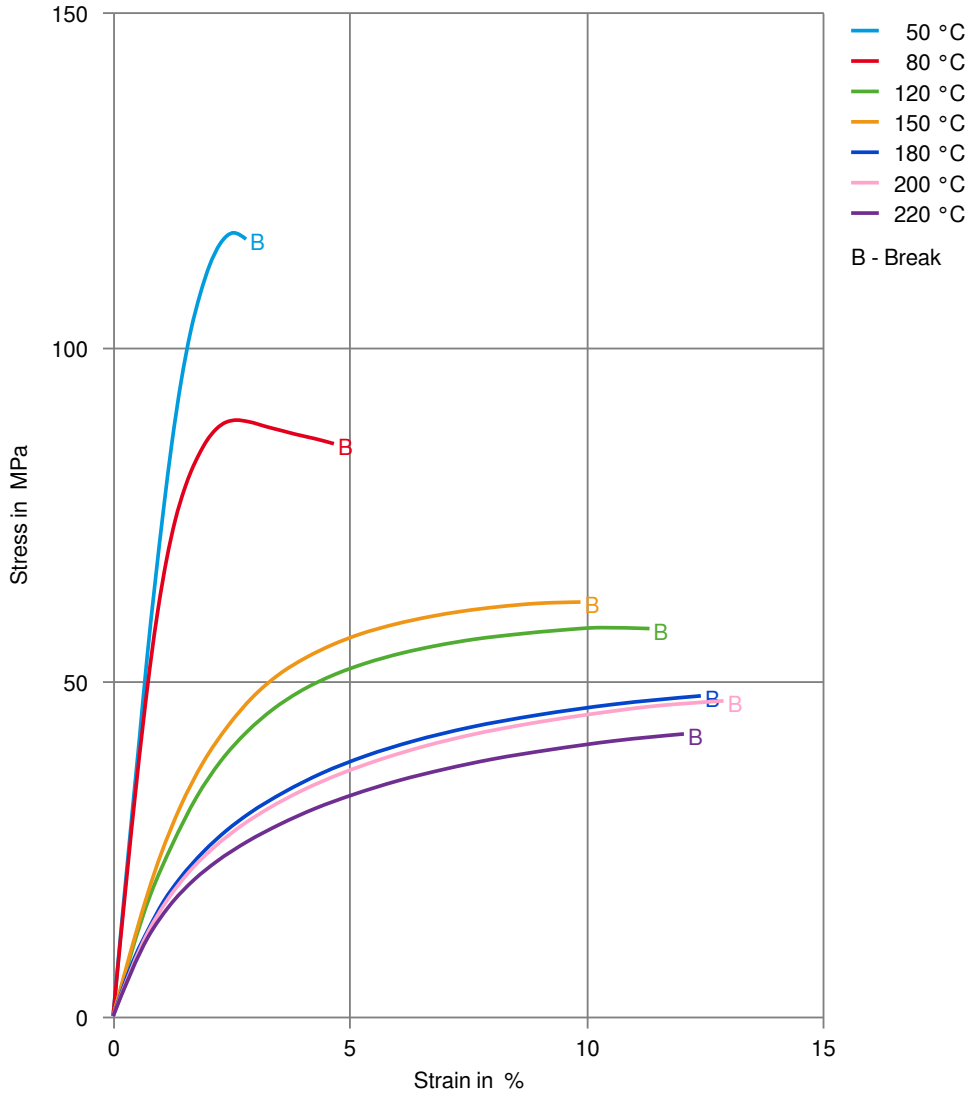
Stress-strain



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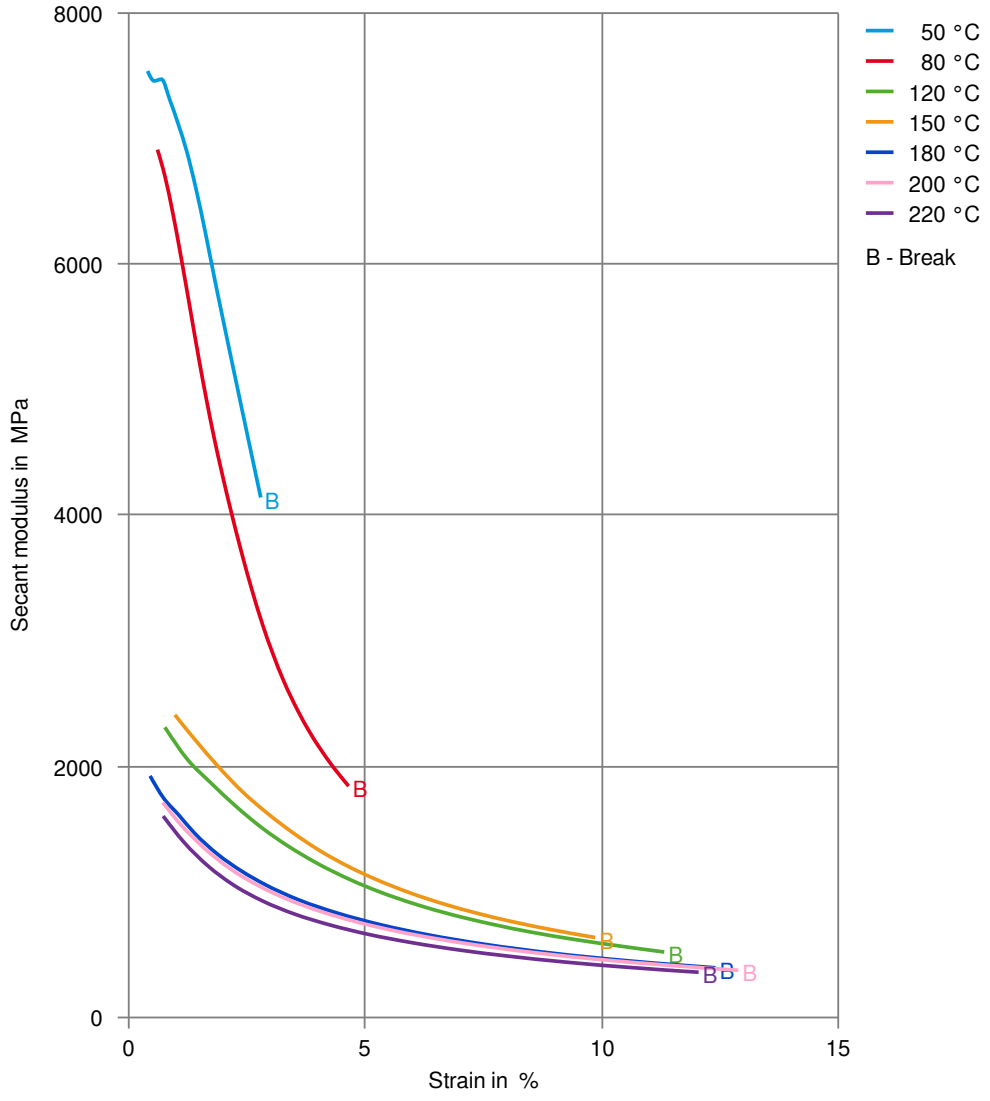
Secant modulus-strain



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