

# FORTRON® 1200L1

## Polyphenylene sulfide

Fortron 1200L1 is an unfilled grade recommended primarily for extrusion applications. It has a high melt viscosity and tensile elongation. Recommended processing conditions are similar to those of our standard unfilled PPS grades.

### Product information

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

### Rheological properties

Moulding shrinkage, parallel	1.3 %	ISO 294-4, 2577
Moulding shrinkage, normal	1.6 %	ISO 294-4, 2577

### Typical mechanical properties

Tensile modulus	4000 MPa	ISO 527-1/-2
Tensile strain at yield, 50mm/min	3 %	ISO 527-1/-2
Tensile stress at break, 50mm/min	88 MPa	ISO 527-1/-2
Tensile strain at break, 50mm/min	15 %	ISO 527-1/-2
Flexural modulus	4100 MPa	ISO 178
Flexural strength	140 MPa	ISO 178
Charpy impact strength, 23 °C	200 kJ/m <sup>2</sup>	ISO 179/1eU
Hardness, Rockwell, M-scale	93	ISO 2039-2
Poisson's ratio	0.36 <sup>[C]</sup>	

[C]: Calculated

### Thermal properties

Melting temperature, 10 °C/min	280 <sup>[OT, 1]</sup> °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	100 <sup>[2]</sup> °C	ISO 75-1/-2
Temperature of deflection under load, 8 MPa	87 <sup>[2]</sup> °C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	40 E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	42 E-6/K	ISO 11359-1/-2

[OT]: One time tested

[1]: In alignment with all regional Product Specialists - changed from 275 °C to 280 °C as no one is aware of where 275 °C is coming from

[2]: FO 1200L1 SF3001 Natural (>PPS<)DTUL @ 1.8 & 8.0 MPa

### Flammability

Burning Behav. at thickness h	V-0 class	IEC 60695-11-10
Thickness tested	3 mm	IEC 60695-11-10

### Electrical properties

Electric strength	30 kV/mm	IEC 60243-1
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## Physical/Other properties

Water absorption, 2mm	0.02 %	Sim. to ISO 62
Density	1340 kg/m <sup>3</sup>	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
Min. mould temperature	140 °C
Max. mould temperature	160 °C
Hold pressure range	30 - 70 MPa

## Characteristics

Processing	Injection Moulding, Film Extrusion, Extrusion, Sheet Extrusion, Other Extrusion
Delivery form	Pellets

## Additional information

Processing Notes

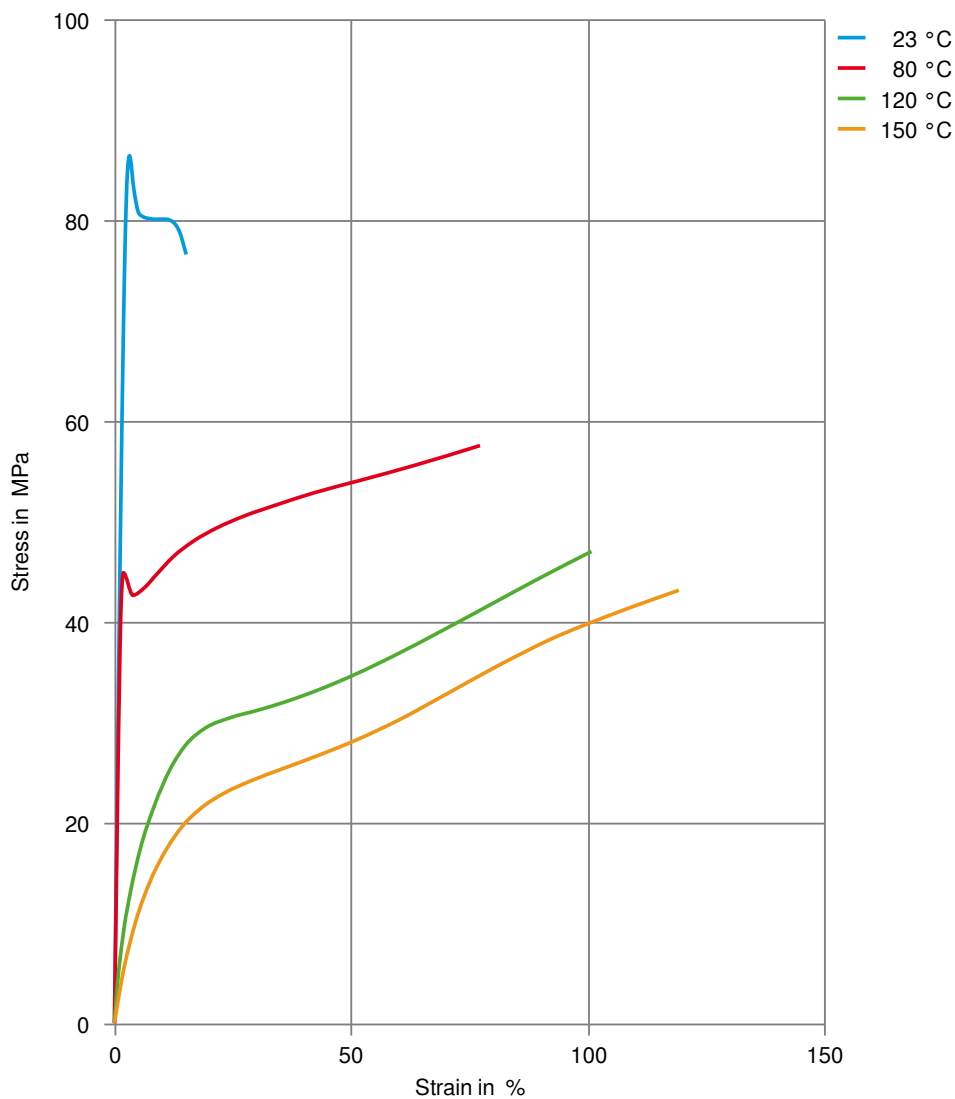
## Processing Notes

The higher drying conditions result in higher melt viscosity.

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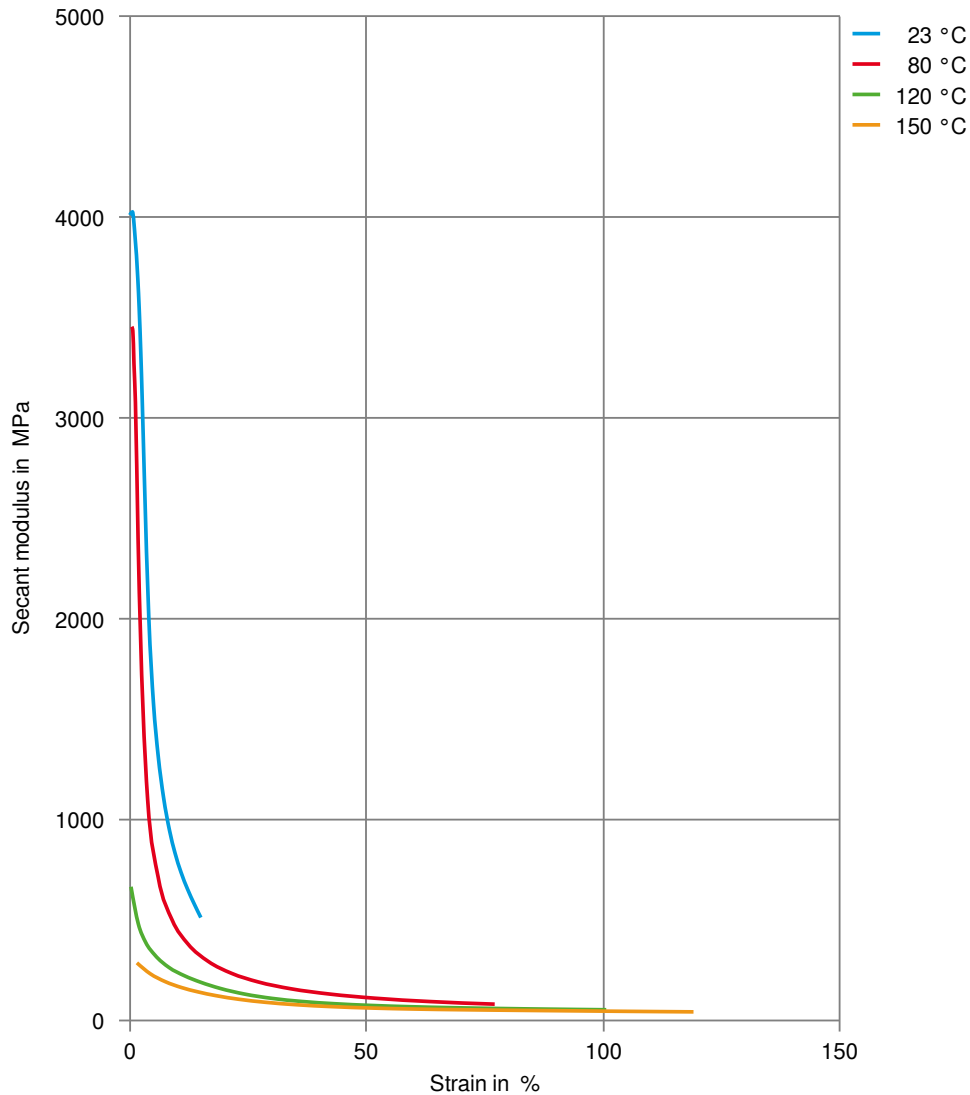
## Stress-strain



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## Secant modulus-strain



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