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CELSTRAN® PPS-CF40-01

CELSTRAN® Long Fibre

Celstran PPS-CF 40-01 is a 40% long carbon fiber Polyphenylene Sulfide. This material imparts excellent impact and extremely high modulus properties that exceed that of short carbon fiber PPS.

Product information

Resin Identification	PPS-LCF40	ISO 1043
Part Marking Code	>PPS-LCF40<	ISO 11469

Typical mechanical properties

Tensile modulus	32000	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	175	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	0.57	%	ISO 527-1/-2
Flexural modulus	30500	MPa	ISO 178
Flexural strength	320	MPa	ISO 178
Charpy notched impact strength, 23 °C	16.5	kJ/m²	ISO 179/1eA
Poisson's ratio	0.33[C]		

[C]: Calculated

Thermal properties

Coefficient of linear thermal expansion (CLTE), parallel	2.3	E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	27.8	E-6/K	ISO 11359-1/-2

Physical/Other properties

Density	1470	kg/m³	ISO 1183

Injection

Back pressure	3	MPa

Characteristics

Processing	Injection Moulding
Delivery form	Pellets

Additional information

Processing Notes

Pre-Drying

CELSTAN PPS 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).

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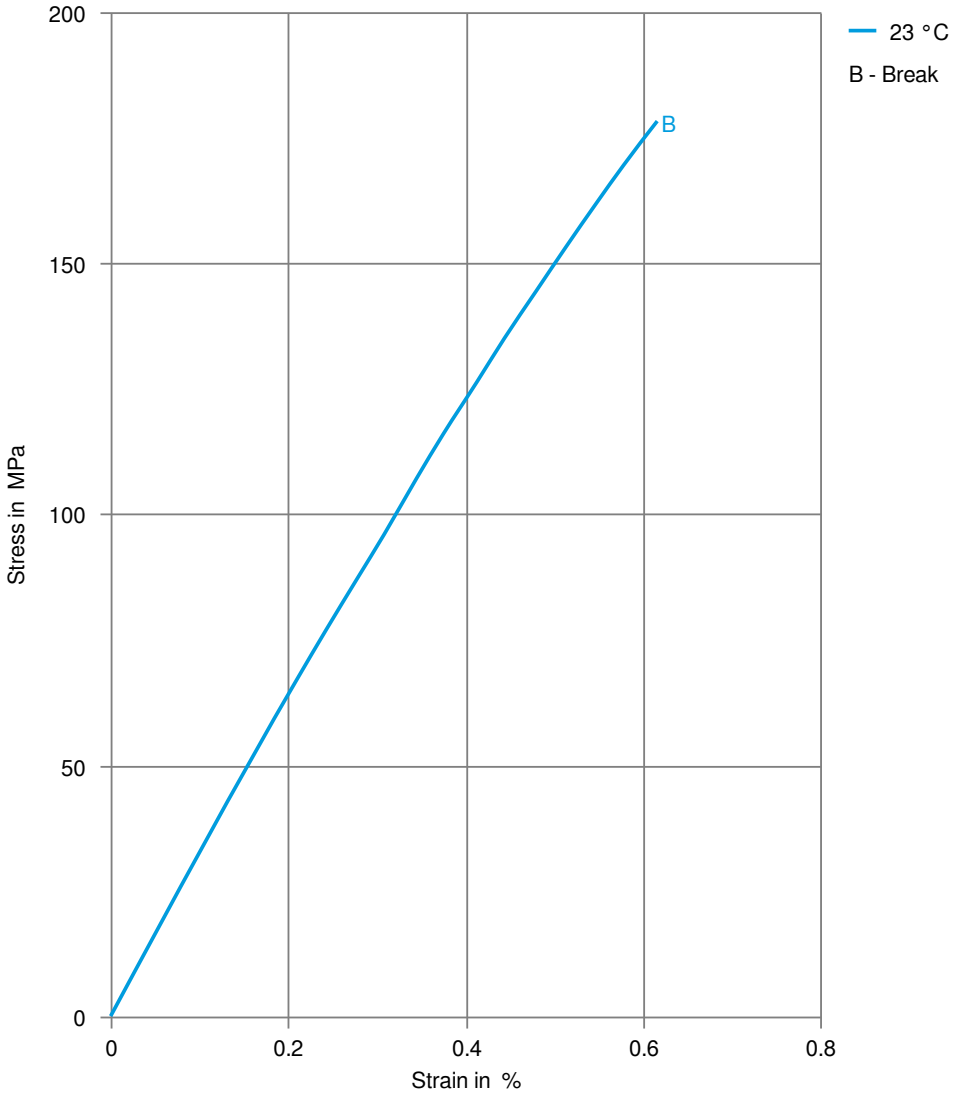
Stress-strain



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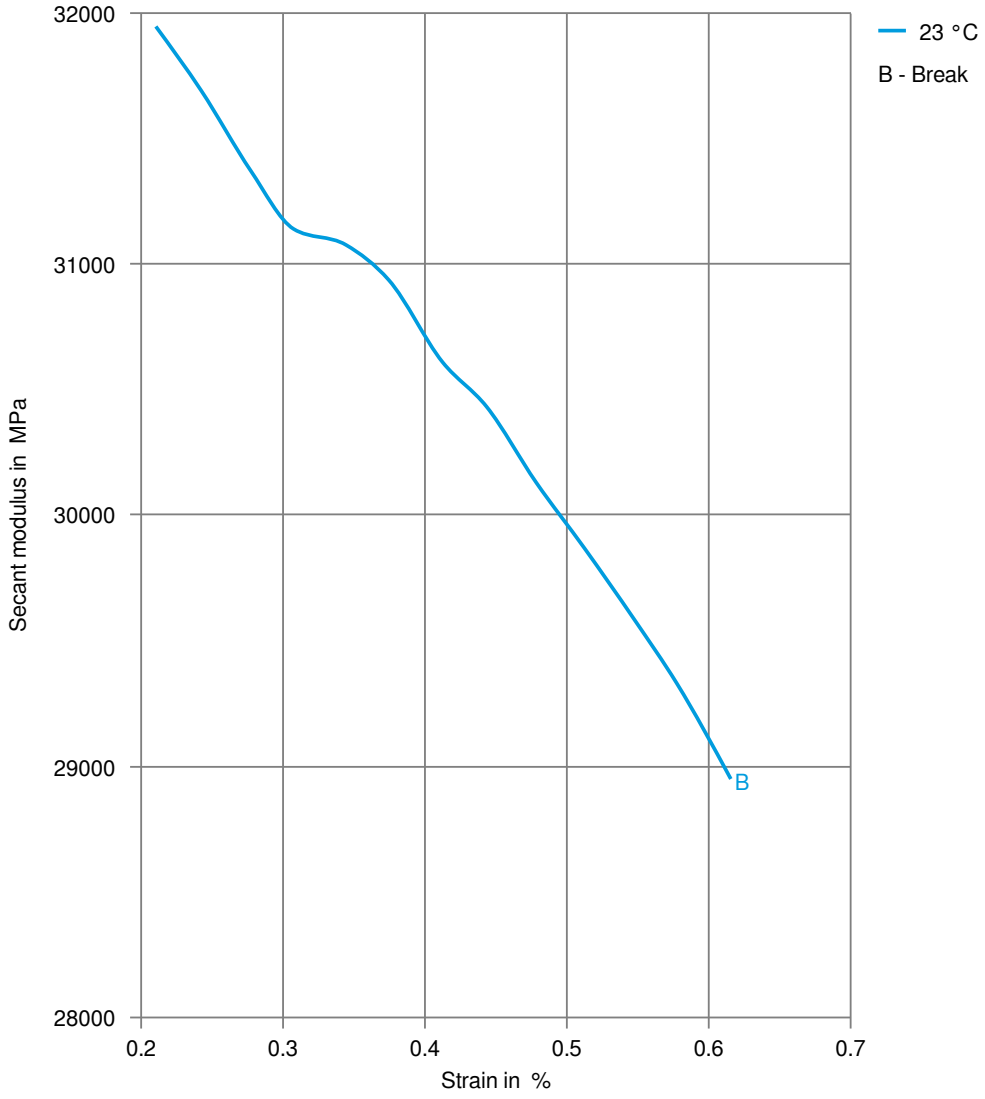
Secant modulus-strain



Revised: 2025-03-25 Source: Celanese Materials Database