

# 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/m <sup>2</sup>	ISO 179/1eA
Poisson's ratio	0.33 <sup>[C]</sup>	

[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/m <sup>3</sup>	ISO 1183
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### Injection

Back pressure	3 MPa
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### 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  $\leq -30^{\circ}\text{C}$ . The time between drying and processing should be as short as possible

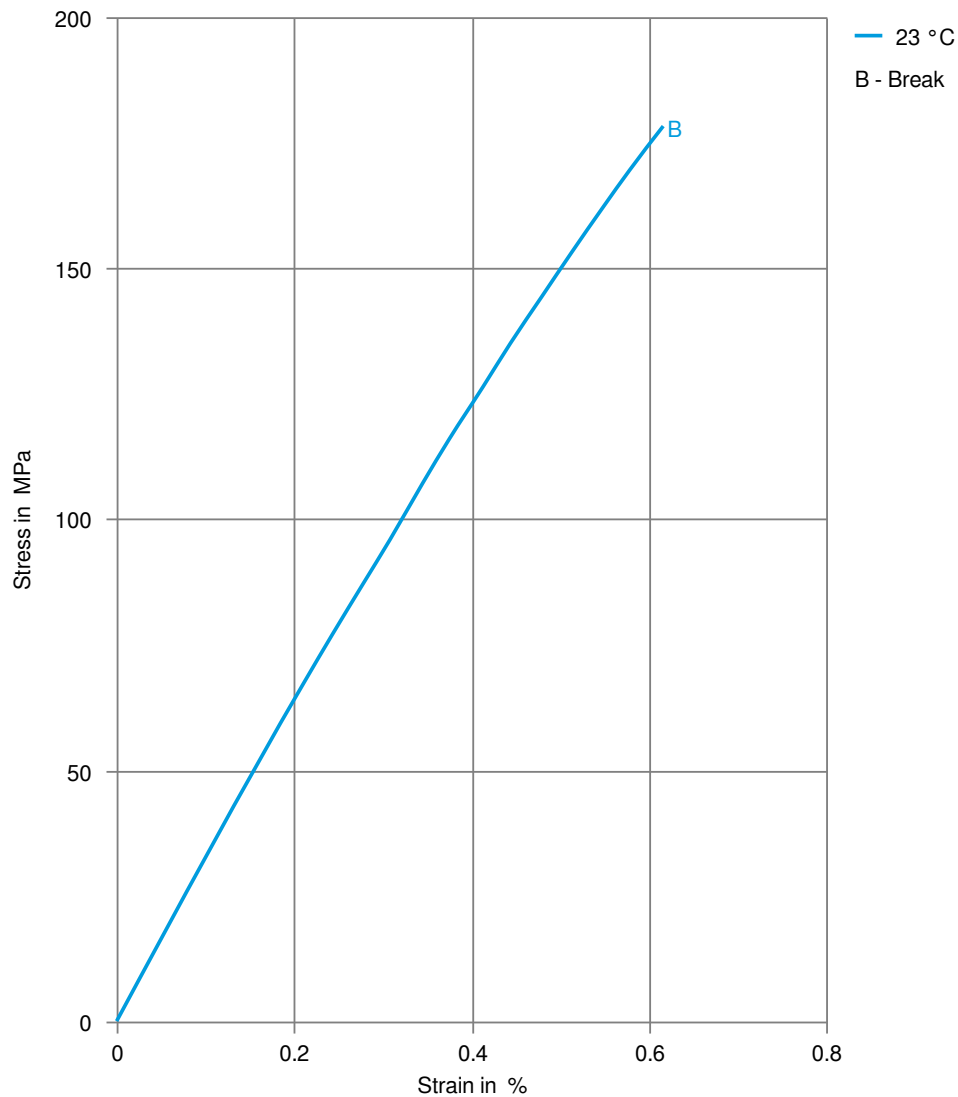
#### Storage

For subsequent storage the material should be stored dry in the dryer until processed ( $\leq 60\text{ h}$ ).

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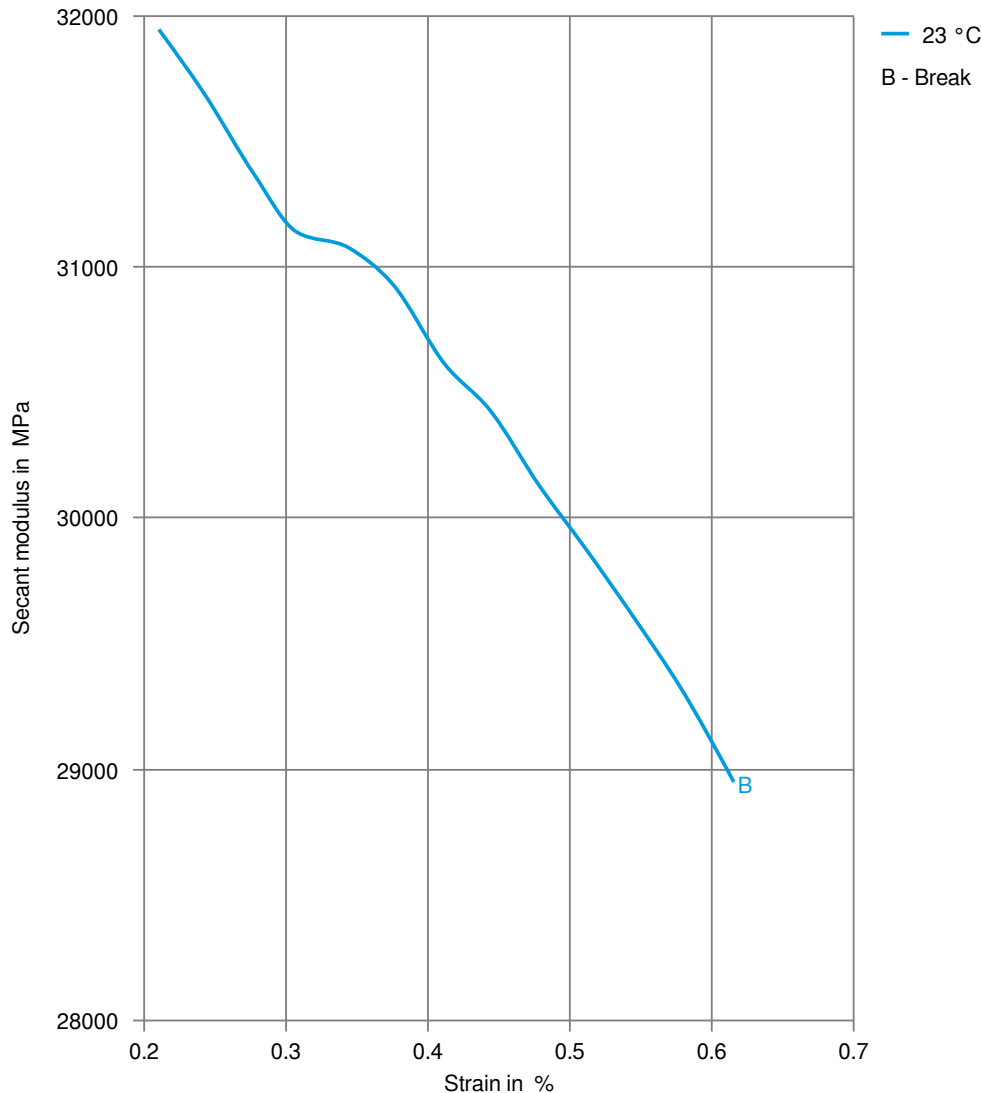
## Stress-strain



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## Secant modulus-strain



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Page: 3 of 3

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