

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 ² | 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/m ³ | 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 $\leq -30^{\circ}\text{C}$. The time between drying and processing should be as short as possible

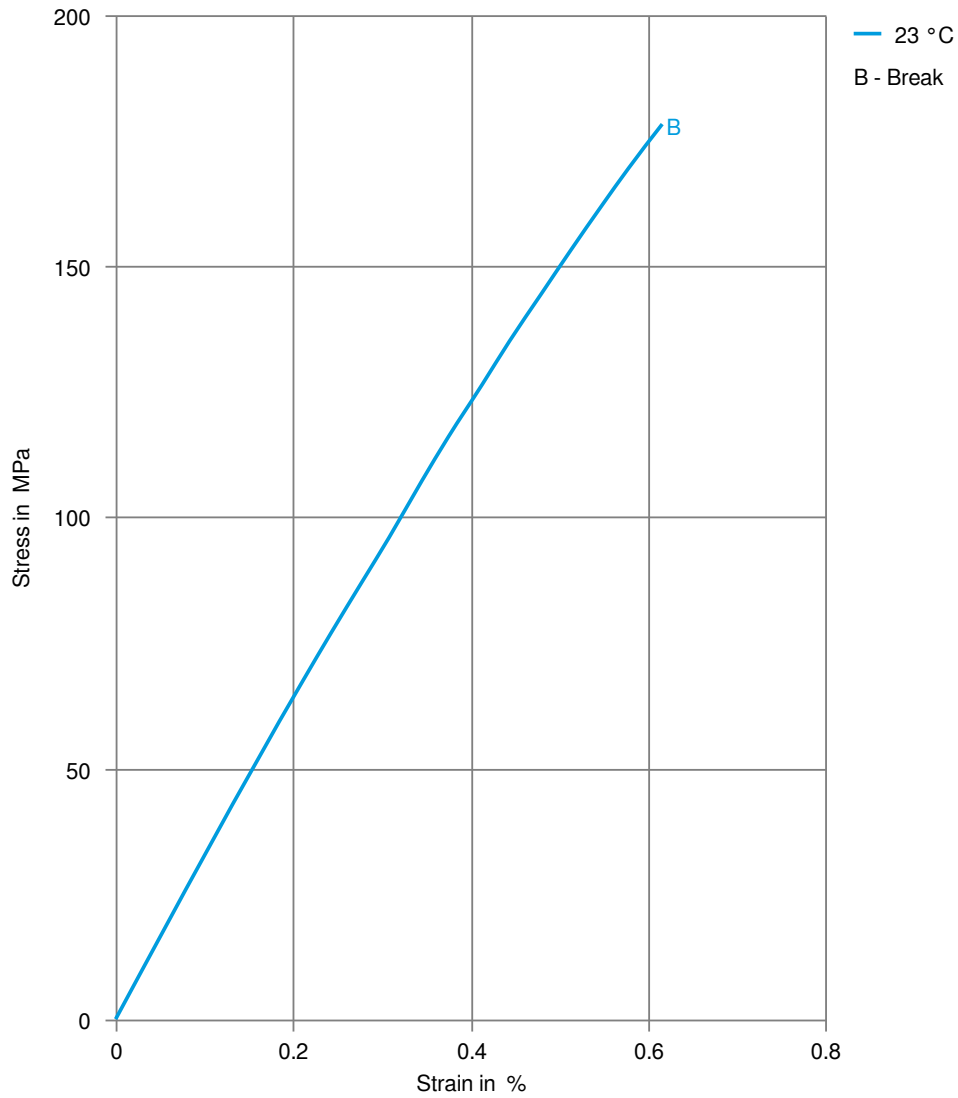
Storage

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

CELSTRAN® PPS-CF40-01

CELSTRAN® Long Fibre

Stress-strain



CELSTRAN® PPS-CF40-01

CELSTRAN® Long Fibre

Secant modulus-strain

