

# CELSTRAN® PPS-CF40-01

Celstran PPS with 40% long carbon fiber

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.

## Typical mechanical properties

Tensile Modulus	37277 MPa	ISO 527-1/-2
Stress at break, 5mm/min	185 MPa	ISO 527-1/-2
Strain at break, 5mm/min	0.57 %	ISO 527-1/-2
Flexural Modulus	34900 MPa	ISO 178
Flexural Strength	343 MPa	ISO 178
Charpy notched impact strength, 23°C	16.5 kJ/m <sup>2</sup>	ISO 179/1eA

## Thermal properties

Coeff. of linear therm. expansion, parallel	2 E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	28 E-6/K	ISO 11359-1/-2

## Other properties

Density	1490 kg/m <sup>3</sup>	ISO 1183
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## Injection

Drying Temperature	120 - 140 °C
Drying Time, Dehumidified Dryer	3 - 4 h
Processing Moisture Content	0.02 %
Screw tangential speed	0.1 m/s
Max. mould temperature	140 - 160 °C
Back pressure	3 MPa
Injection speed	medium

## Processing Texts

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
Longer pre-drying times/storage	For subsequent storage the material should be stored dry in the dryer until processed (≤ 60 h).

