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	4.64E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	25400	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	0.57	%	ISO 527-1/-2
Flexural modulus	4.42E6	psi	ISO 178
Flexural strength	46400	psi	ISO 178
Charpy notched impact strength, 23°C	7.85	ftlb/in²	ISO 179/1eA

Thermal properties

Coefficient of linear thermal expansion (CLTE), parallel	0.01	E-4/°F	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	0.154	E-4/°F	ISO 11359-1/-2

Physical/Other properties

Density	0.0531	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	284	°F
Drying Time, Dehumidified Dryer	3 - 4	h
Processing Moisture Content	≤0.02	%
Melt Temperature Optimum	599	°F
Min. melt temperature	563	°F
Max. melt temperature	635	°F
Max. screw tangential speed	0.1 - 0.2	m/s
Mold Temperature Optimum	302	°F
Min. mold temperature	284	°F
Max. mold temperature	320	°F
Back pressure	435	psi

Characteristics

Processing	Injection Molding

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

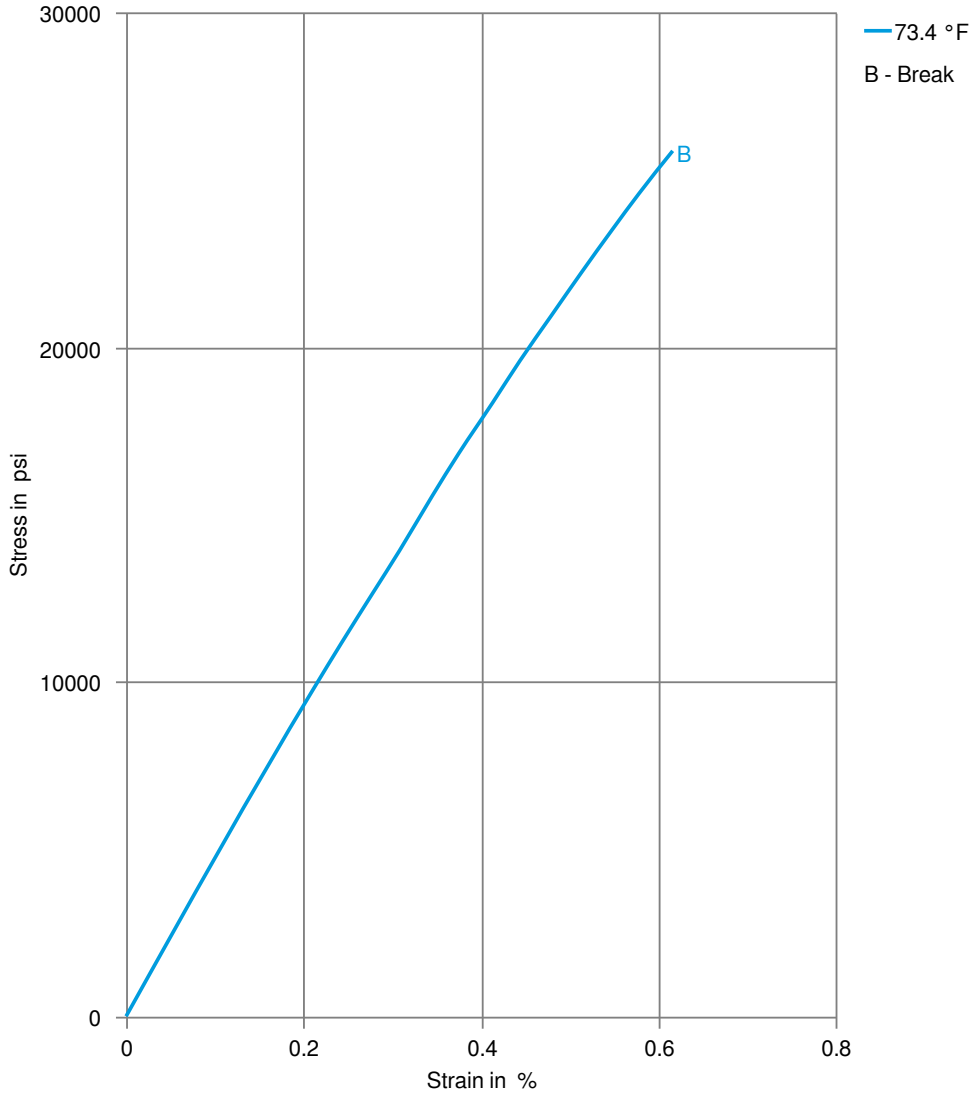
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Storage

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

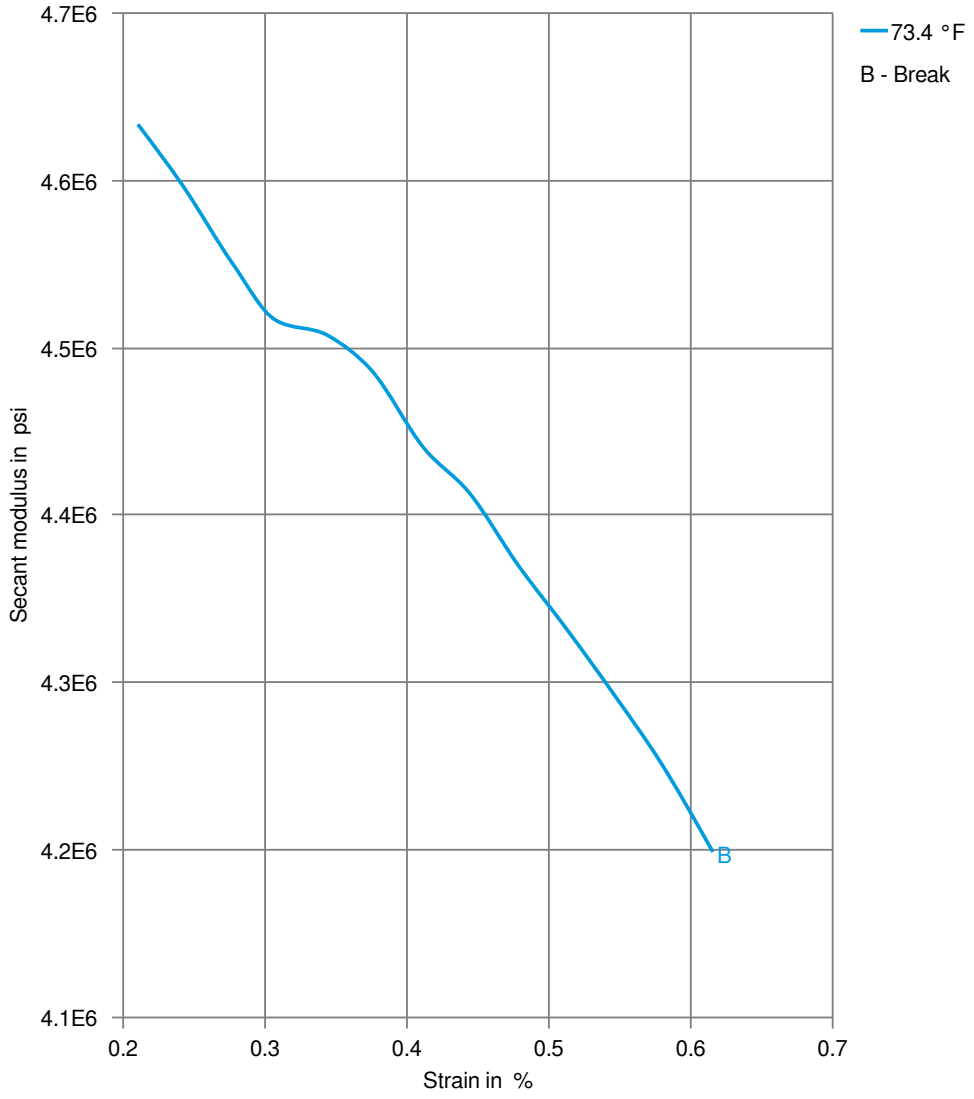
Stress-strain



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Secant modulus-strain



Revised: 2026-10-01 Source: Celanese Materials Database

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