Celanese
The chemistry inside innovation™

CELSTRAN® PA66-CF40-02 AF3004 NATURAL

CELSTRAN® Long Fibre

Celstran® PA66-CF40-02 is a 40% long carbon fiber 66 polyamid. This material imparts excellent impact and extremely high modulus properties that exceed that of short carbon fiber PA66. High heat distortion temperatures and good chemical resistance makes Celstran PA66 the perfect product for metal replacement applications

Product information

Resin Identification	PA66-LCF40	ISO 1043
Part Marking Code	>PA66-LCF40<	ISO 11469

Typical mechanical properties

Tensile modulus	30900	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	294	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	1	%	ISO 527-1/-2
Flexural modulus	26000	MPa	ISO 178
Flexural strength	460	MPa	ISO 178
Charpy notched impact strength, 23 °C	23	kJ/m²	ISO 179/1eA
Poisson's ratio	0.33[C]		

[C]: Calculated

Thermal properties

Temperature of deflection under load, 1.8 MPa	260	°C	ISO 75-1/-2

Physical/Other properties

Density	1340	kg/m³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	80	°C
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.2	%
Melt Temperature Optimum	295	°C
Min. melt temperature	285	°C
Max. melt temperature	305	°C
Screw tangential speed	≤0.2	m/s
Mold Temperature Optimum	100	°C
Min. mould temperature	70	°C
Max. mould temperature	120	°C
Hold pressure range	50 - 100	MPa
Ejection temperature	215	°C

Characteristics

Processing	Injection Moulding
Delivery form	Pellets
Special characteristics	Increased electrical conductivity, Heat stabilised or stable to heat, Light weight

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Additional information

Processing Notes

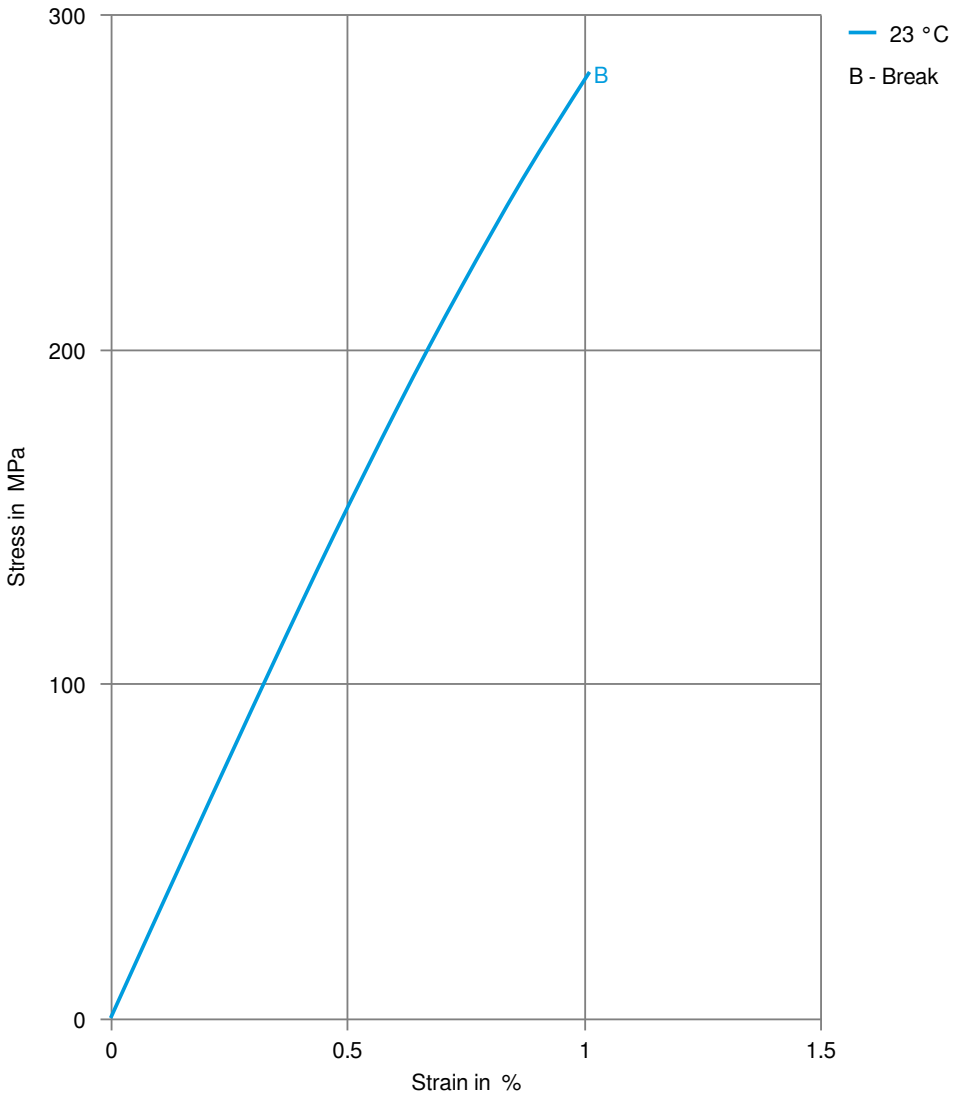
Pre-Drying

CELSTRAN PA 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

Note: Material can be over dried and may discolor.

Stress-strain



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Secant modulus-strain