

# CELSTRAN® PP-GF40-0414 P10

## CELSTRAN® Long Fibre

Material code according to ISO 1043-1: PP Heat stabilized polypropylene reinforced with 40 weight percent long glass fibers. Natural. The fibers are chemically coupled to the polypropylene matrix. The pellets are cylindrical and normally as well as the embedded fibers 11 mm long. Parts molded of CELSTRAN have outstanding mechanical properties such as high strength and stiffness combined with high heat deflection. The notched impact strength is increased at elevated and low temperatures due to the fiber skeleton built in the parts. The long fiber reinforcement reduces creep significantly. The very isotropic shrinkage in the molded parts minimizes the warpage. Complex parts can be manufactured with high reproducibility by injection molding. Application field: Functional/structural parts for automotive

### Product information

Resin Identification	PP-LGF40	ISO 1043
Part Marking Code	>PP-LGF40<	ISO 11469

### Typical mechanical properties

Tensile modulus	9300 MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	137 MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.2 %	ISO 527-1/-2
Flexural modulus	9300 MPa	ISO 178
Flexural strength	220 MPa	ISO 178
Charpy impact strength, 23°C	70 kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	50 kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, 23°C	30 kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C	35 kJ/m <sup>2</sup>	ISO 179/1eA
Poisson's ratio	0.34 <sup>[C]</sup>	

[C]: Calculated

### Thermal properties

Melting temperature, 10°C/min	166 °C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	158 °C	ISO 75-1/-2
Temperature of deflection under load, 8 MPa	134 °C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	21.7 E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	89.2 E-6/K	ISO 11359-1/-2

### Physical/Other properties

Density	1210 kg/m <sup>3</sup>	ISO 1183
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### Injection

Back pressure	3 MPa
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### Characteristics

Processing	Injection Moulding, Extrusion, Sheet Extrusion, Other Extrusion, Transfer Moulding
Delivery form	Pellets

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### Additional information

Processing Notes

### Pre-Drying

It is normally not necessary to dry CELSTRAN PP

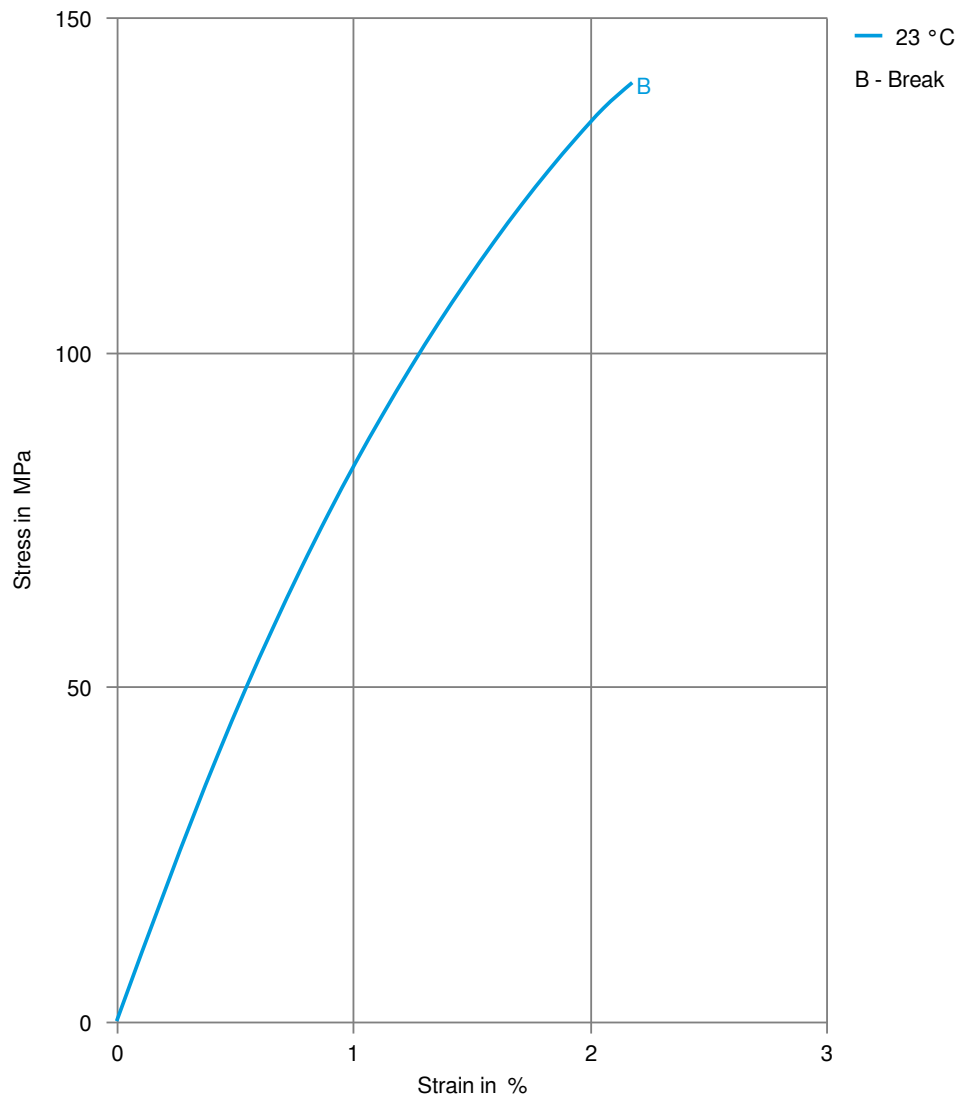
### Automotive

OEM	STANDARD	ADDITIONAL INFORMATION
Bosch	N28 BN09-GF026	Black, Kaiserslautern
Bosch	N28 BN09-GF026	Natural, Kaiserslautern
Ford	WSS-M4D865-B1	
Great Wall Motor	MP01-LG-03	
Mercedes-Benz	DBL5418	
Stellantis - Chrysler	MS-DB-21 / CPN-4451	Natural

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## Stress-strain



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## Secant modulus-strain

