Celanese
The chemistry inside innovation™

CELSTRAN® PP-GF20-0553 XVA 103H Black

CELSTRAN® Long Fibre

Material code according to ISO 1043-1: PP Enhance Appearance, Heat stabilized polypropylene reinforced with 20 weight percent long glass fibers, low emission grade. Black. 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-LGF20	ISO 1043
Part Marking Code	>PP-LGF20<	ISO 11469

Rheological properties

Moulding shrinkage, parallel	0.2	%	ISO 294-4, 2577
Moulding shrinkage range, parallel	0.2 - 0.3	%	ISO 294-4, 2577
Moulding shrinkage, normal	0.5	%	ISO 294-4, 2577
Moulding shrinkage range, normal	0.4 - 0.6	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	4930	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	83	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.5	%	ISO 527-1/-2
Flexural modulus	5020	MPa	ISO 178
Flexural strength	140	MPa	ISO 178
Charpy impact strength, 23°C	49	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	45	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	18.6	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	20	kJ/m²	ISO 179/1eA
Poisson's ratio	0.45		

Thermal properties

Temperature of deflection under load, 1.8 MPa	158	°C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	44	E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	126	E-6/K	ISO 11359-1/-2

Physical/Other properties

Density	1030	kg/m³	ISO 1183

Injection

Ejection temperature	117	°C

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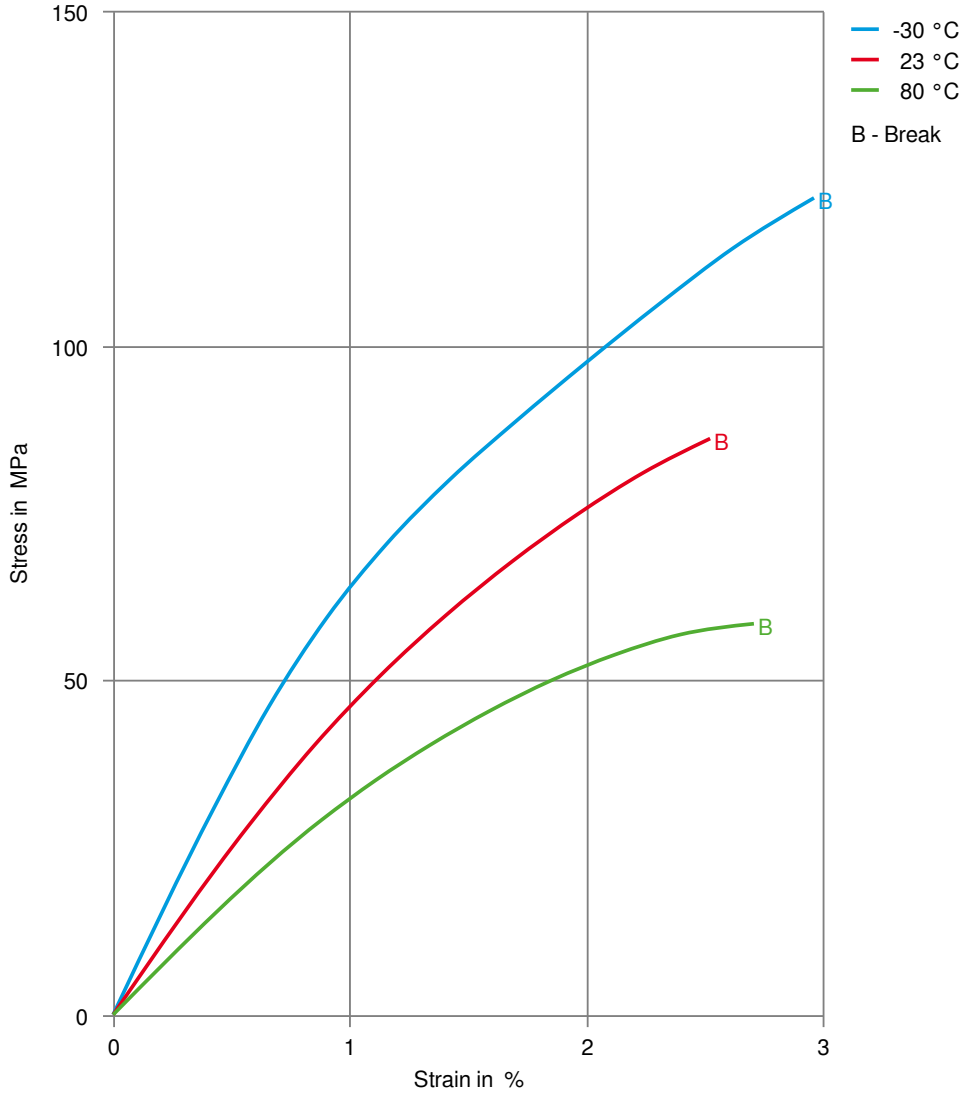
Characteristics

Special characteristics	Low emissions

Automotive

OEM	STANDARD	ADDITIONAL INFORMATION
General Motors	GMW15890P-PP-GF20E-Class-U	Black
General Motors	GMW17697P-PP-GF20E	Black

Stress-strain



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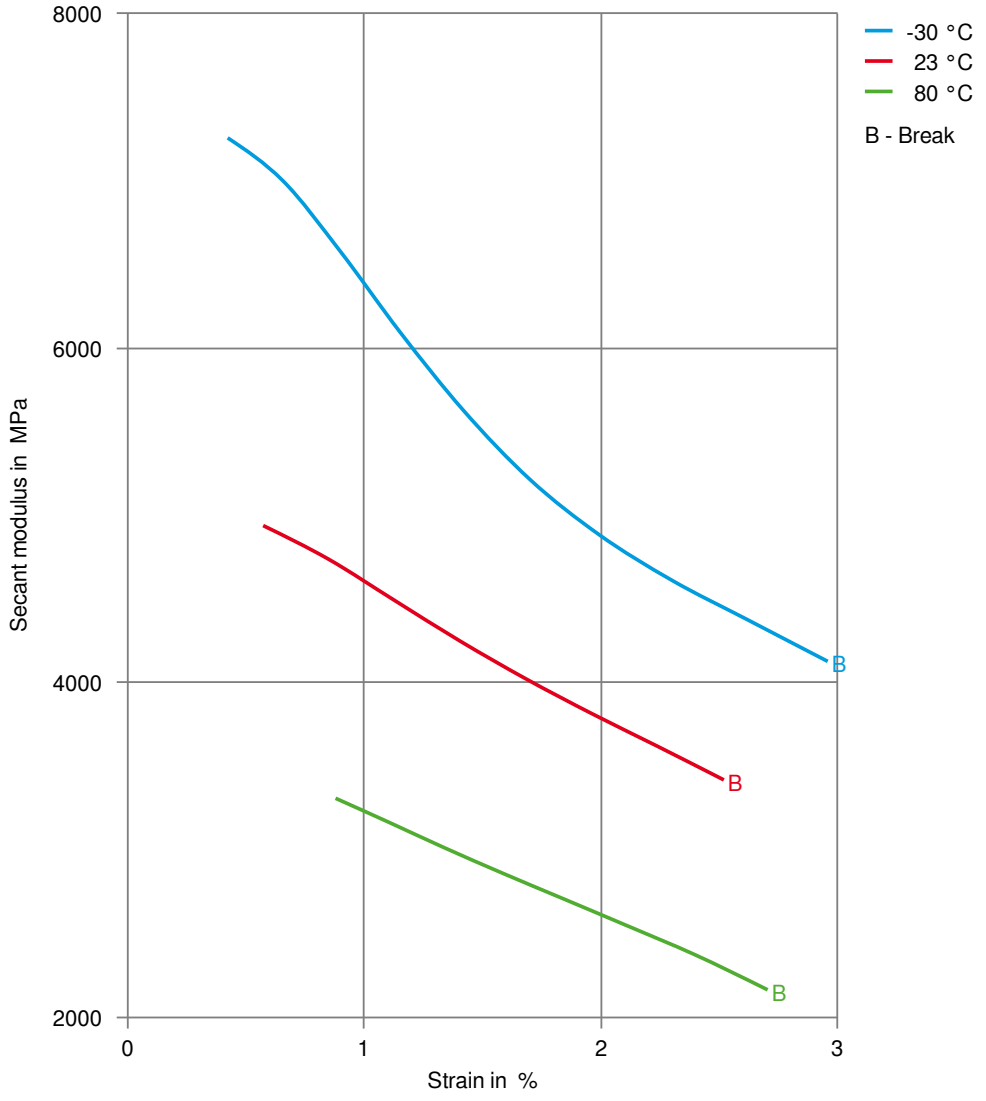
Secant modulus-strain



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