Celanese
The chemistry inside innovation™

CELSTRAN® PP-GF50-0405E Black

CELSTRAN® Long Fibre

PP with 50% ash content - UV stabilized.
Celstran PP-GF50-0405E black is a UV stabilized polypropylene reinforced with long glass fibres.
It is based on a combinationof antioxidants and UV-stabilizers making this grade fit for automotive exterior applications.
Fibres are cheically coupled to the polypropylene matrix.
Pellets are of 11mm length, fully impregnated.

PRELIMINARY DATA SHEET

Product information

Resin Identification	PP-LGF50	ISO 1043
Part Marking Code	>PP-LGF50<	ISO 11469

Typical mechanical properties

Tensile modulus	11600	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	140	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	1.8	%	ISO 527-1/-2
Flexural modulus	12000	MPa	ISO 178
Charpy impact strength, 23°C	60	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	60	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	30	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	30	kJ/m²	ISO 179/1eA
Poisson's ratio	0.33[C]		

[C]: Calculated

Thermal properties

Melting temperature, 10°C/min	165	°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	138	°C	ISO 75-1/-2

Physical/Other properties

Density	1340	kg/m³	ISO 1183

Injection

Drying Temperature	100	°C
Drying Time, Dehumidified Dryer	2	h
Processing Moisture Content	≤0.2	%
Screw tangential speed	≤0.0982	m/s
Min. mould temperature	30	°C
Max. mould temperature	70	°C
Hold pressure range	40 - 80	MPa
Back pressure	0.500	MPa

Characteristics

Processing	Injection Moulding
Delivery form	Pellets
Special characteristics	Light stabilised or stable to light, U.V. stabilised or stable to weather

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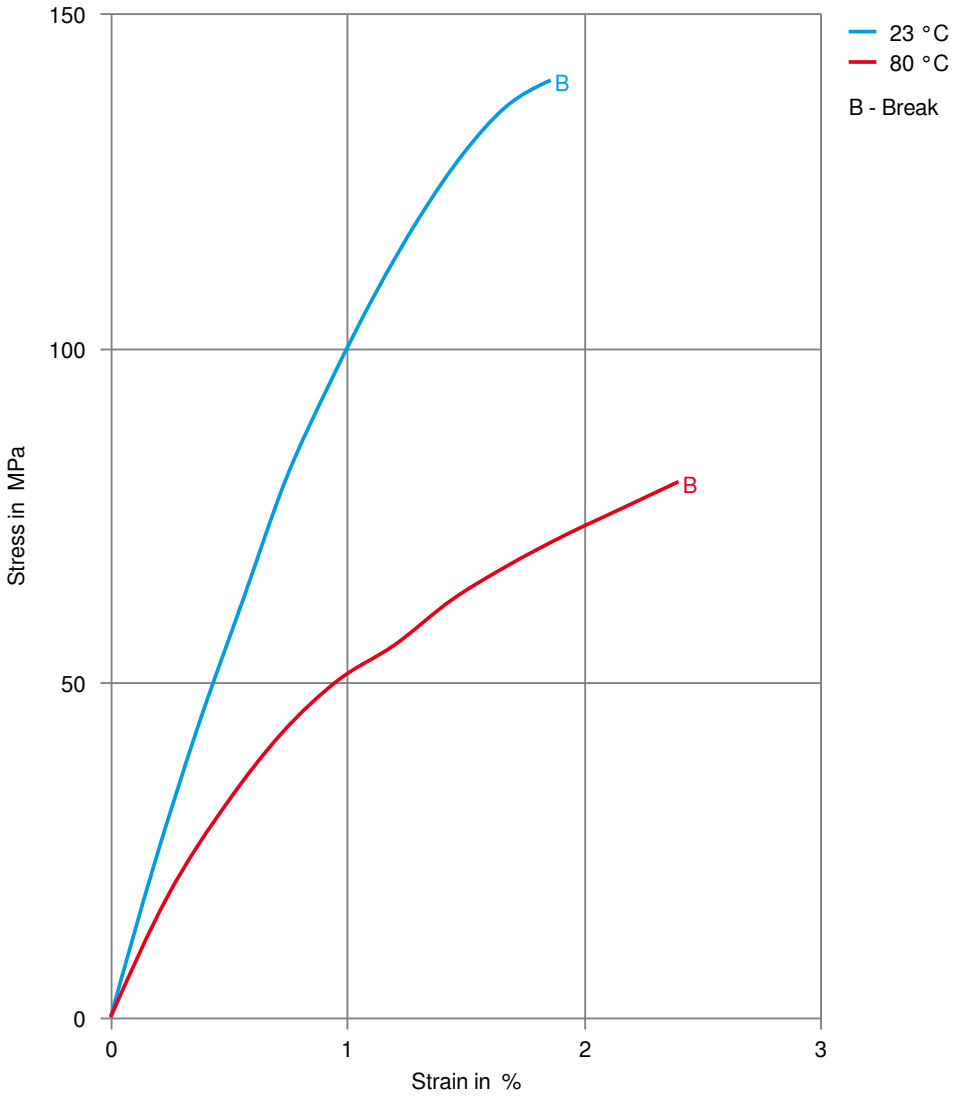
Additional information

Processing Notes

Pre-Drying

Even if Celstran materials have not a great tendency to absorb humidity it is always suggested to pre-dry the pellets at minimum 2h/80 or 90 °C to get a stable and comfortable IM processability.

Stress-strain



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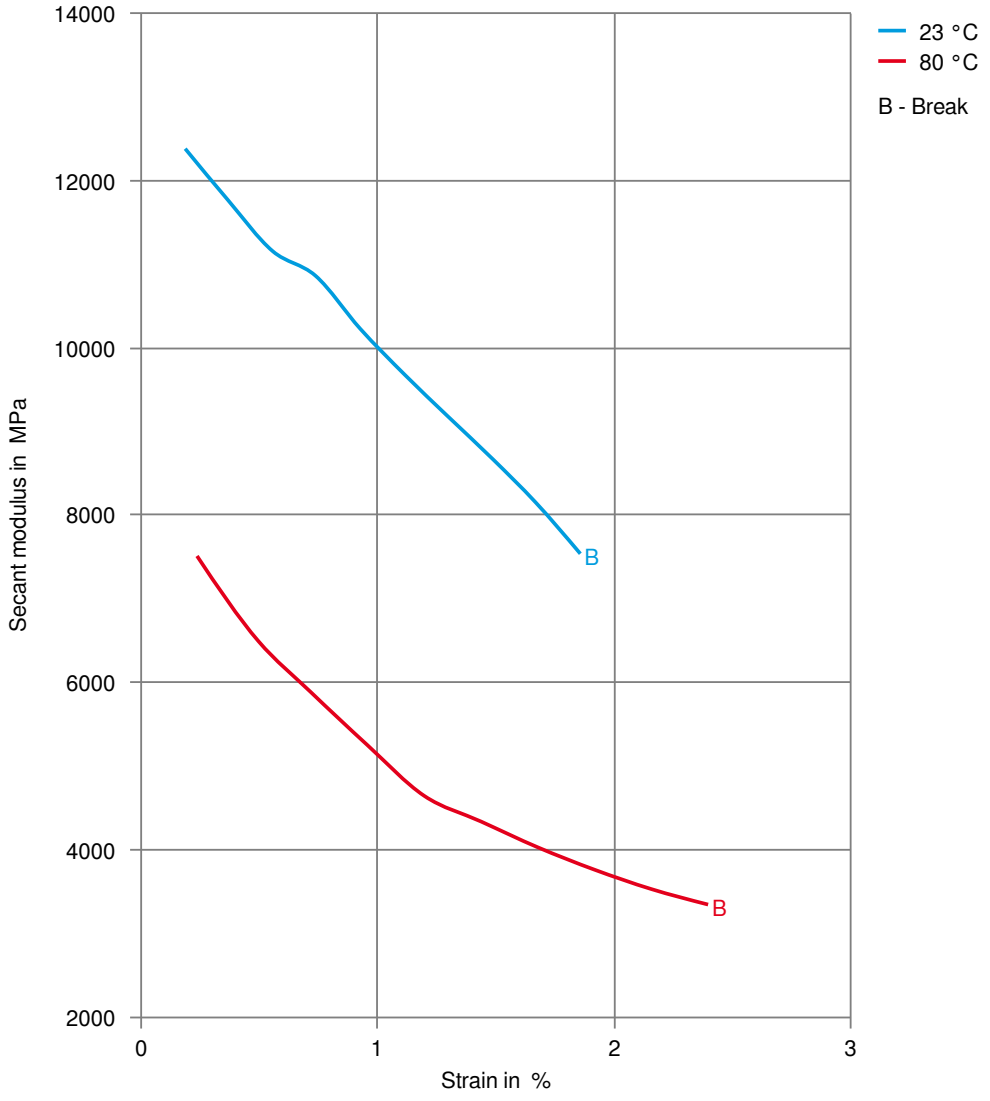
Secant modulus-strain



Revised: 2024-09-09 Source: Celanese Materials Database