CELSTRAN® DEV PP-GF50-0405E Black

CELSTRAN® Long Fibre

PRELIMINARY DATA SHEET

Celstran DEV PP-GF50-0405E black is a long glass fibre reinforced polypropylene with outstanding UV resistance.
It is based on a proprietary combination of antioxidants and UV-stabilizers making this grade fit for exterior applications for automotive and non-automotive parts.
Pellets are of 11mm length, and glass fibres are fully impregnated by the polymer matrix.

Product information

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

Typical mechanical properties

Tensile modulus	1.68E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	20300	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	1.8	%	ISO 527-1/-2
Flexural modulus	1.74E6	psi	ISO 178
Charpy impact strength, 23°C	28.5	ftlb/in²	ISO 179/1eU
Charpy impact strength, -30°C	28.5	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23°C	14.3	ftlb/in²	ISO 179/1eA
Charpy notched impact strength, -30°C	14.3	ftlb/in²	ISO 179/1eA

Thermal properties

Melting temperature, 10°C/min	329	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	316	°F	ISO 75-1/-2
Temperature of deflection under load, 8 MPa	280	°F	ISO 75-1/-2

Physical/Other properties

Density	0.0484	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	194	°F
Drying Time, Dehumidified Dryer	2	h
Processing Moisture Content	≤0.2	%
Melt Temperature Optimum	518	°F
Min. melt temperature	482	°F
Max. melt temperature	554	°F
Max. screw tangential speed	≤0.1	m/s
Mold Temperature Optimum	158	°F
Min. mold temperature	140	°F
Max. mold temperature	176	°F

Characteristics

Processing	Injection Molding
Special characteristics	Light stabilized or stable to light, U.V. stabilized or stable to weather

Revised: 2025-07-21 Source: Celanese Materials Database

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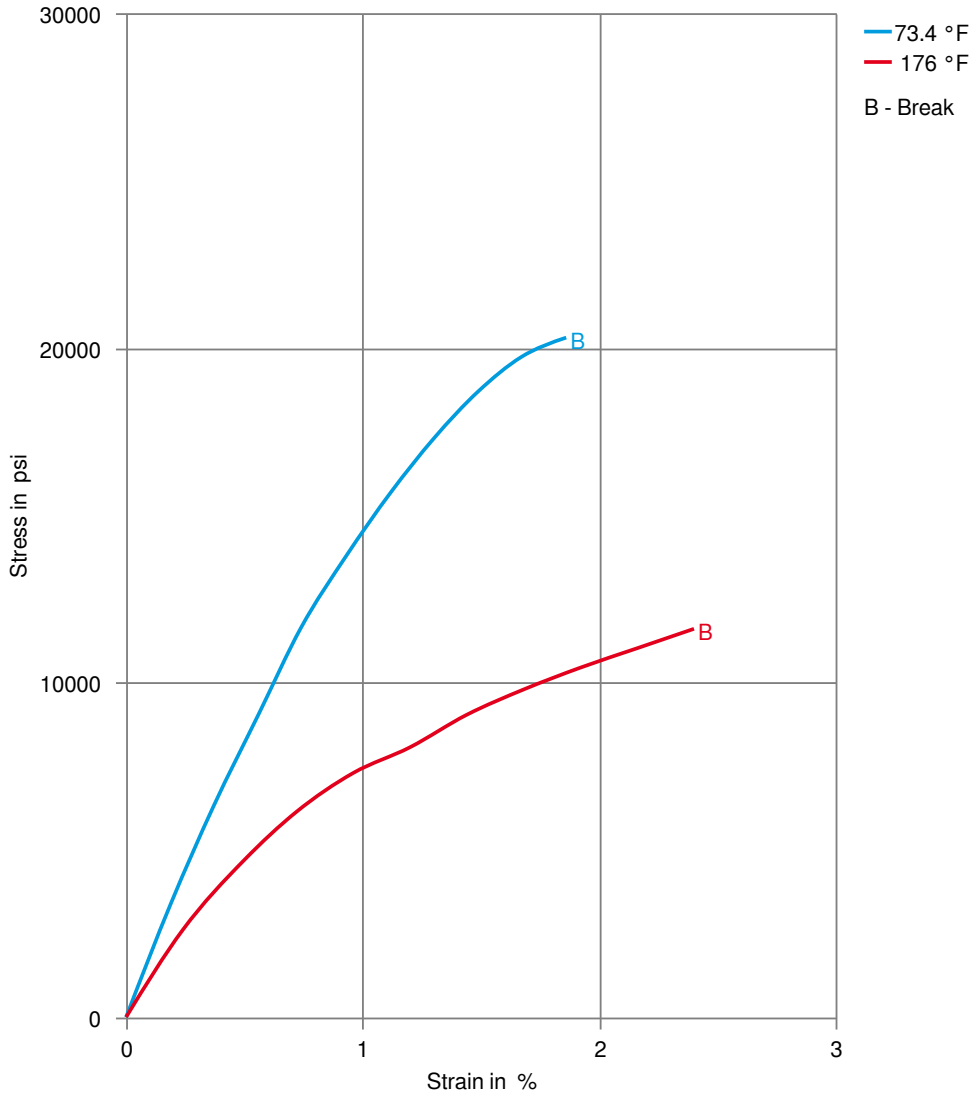
Additional information

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.

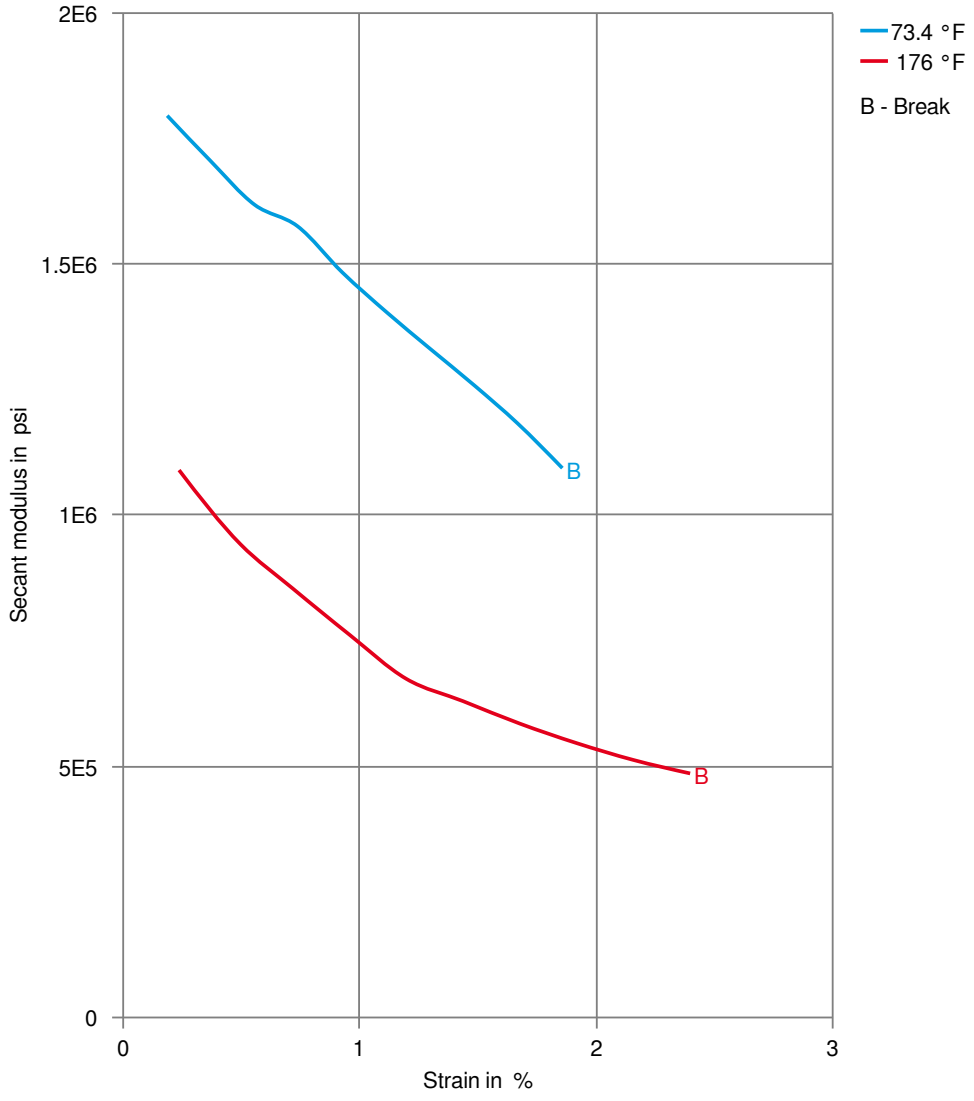
Stress-strain



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Secant modulus-strain



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