CELSTRAN® PP-GF20-0553 XLE

CELSTRAN® Long Fibre

Material code according to ISO 1043-1: PP Polypropylene with 20 weight percent ash content, long glass fibers reinforced copolymer. The fibers are chemically coupled to the polypropylene matrix. The pellets are cylindrical and normally as well as the embedded fibers 10 mm long.
Low odor grade, not suggest to use mold release or lubricants in molding.

Product information

Resin Identification	PP-LGF20	ISO 1043
Part Marking Code	>PP-LGF20<	ISO 11469

Typical mechanical properties

Tensile modulus	711000	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	13300	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.7	%	ISO 527-1/-2
Flexural modulus	754000	psi	ISO 178
Flexural strength	21800	psi	ISO 178
Charpy impact strength, 23°C	28.5	ftlb/in²	ISO 179/1eU
Charpy impact strength, -30°C	33.3	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23°C	11.4	ftlb/in²	ISO 179/1eA
Charpy notched impact strength, -30°C	11.4	ftlb/in²	ISO 179/1eA
Izod notched impact strength, 23°C	10.9	ftlb/in²	ISO 180/1A

Thermal properties

Temperature of deflection under load, 1.8 MPa	318	°F	ISO 75-1/-2

Physical/Other properties

Density	0.0374	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	194	°F
Drying Time, Dehumidified Dryer	2 - 3	h
Processing Moisture Content	≤0.2	%
Melt Temperature Optimum	446	°F
Min. melt temperature	392	°F
Max. melt temperature	464	°F
Max. screw tangential speed	≤0.1	m/s
Mold Temperature Optimum	122	°F
Min. mold temperature	86	°F
Max. mold temperature	158	°F
Back pressure	435	psi

Automotive

OEM	STANDARD	ADDITIONAL INFORMATION
Great Wall Motor	MP01 LG-01	
Li Auto	Q/LiA5310050	2021 (V2)

Revised: 2025-07-10 Source: Celanese Materials Database

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Mercedes-Benz	DBL5404	(5404.70), China
SAIC Motor	SMTC 5 310 041	

Characteristics

Processing	Injection Molding
Special characteristics	High impact or impact modified, Low emissions

Additional information

Injection molding

Preprocessing

Material Handling: The best transfer method for Celstran materials is a typical pneumatic system with a filter, although filterless systems are also available. With any system, smooth inner walls are preferred. Too many turns (recommended to use long radius turns), too small size of conveying pipes (recommended diameter >=2 inches), and too high conveying speed (recommended conveying speed <= 16m/s) will cause excessive loose fibers accumulation and even blockage. We recommend periodic checks and cleaning of the screen filter in the air conveying system to maintain consistent air flow.

Processing Notes

Pre-Drying

It is normally not necessary to dry CELSTRAN PP. However, should there be surface moisture (condensate) on the molding compound as a result of incorrect storage, drying is required.

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Storage

The product can then be stored in standard conditions until processed.

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