

Product Texts

Material code according to ISO 1043-1: PP Heat stabilized polypropylene reinforced with 50 weight percent long glass fibers. 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

Flammability at thickness h (2 HB mm)

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	11600	MPa	ISO 527
^[C] Stress at break	140	MPa	ISO 527
^[C] Strain at break	1.8	%	ISO 527
^[C] Charpy impact strength, +23°C	60	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	58	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	32	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	33	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	165	°C	ISO 11357-1/-3
^[C] Temp. of deflection under load, 1.80 MPa	158	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 8.00 MPa	134	°C	ISO 75-1/-2
^[C] Burning Behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	2.0	mm	-

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
^[C] Density	1340	kg/m ³	ISO 1183

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	94	°C	-
Pre-drying - Time	2	h	-
Melt temperature	260 - 290	°C	-
Mold temperature	40 - 70	°C	-

Characteristics

Processing

Injection Molding, Profile Extrusion, Sheet Extrusion, Other Extrusion, Coating, Transfer Molding

Delivery form

Pellets, Black

Special Characteristics

Heat stabilized or stable to heat

Features

Chemically Coupled Reinforcement, Creep Resistance, Long fiber reinforced, Low Warpage

Applications

Automotive

Regional Availability

North America, Europe, Asia Pacific

Other text information

Injection molding

PP&PE drying requirements: 2 hrs. @94° C.

A dehumidifier or desiccant dryer is recommended.

Celstran can be processed on a standard injection molding unit.

A general purpose metering screw is recommended with a zone distribution of 40% feed, 40% transition, and 20% metering.

A free flowing check ring assembly is recommended.

Melt Temp: 260-290°C.

Mold Temp: 40- 70°C.