

Celstran® PP-GF20-0501 Black P11

Polypropylene Copolymer

Celanese Corporation

Message:

Material code according to ISO 1043-1: PP

Polypropylene copolymer reinforced with 20 weight percent long glass fibers. Low emission. The fibers are chemically coupled to the polypropylene matrix. The pellets are cylindrical and normally as well as the embedded fibers 10 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

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 20% filler by weight		
Appearance	Black		
Physical	Nominal Value	Unit	Test Method
Density	1.03	g/cm ³	ISO 1183
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	4990	MPa	ISO 527-2/1A/1
Tensile Stress (Break)	89.0	MPa	ISO 527-2/1A/5
Tensile Strain (Break)	2.4	%	ISO 527-2/1A/5
Flexural Modulus (23°C)	4820	MPa	ISO 178
Flexural Stress (23°C)	137	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	20	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	60	kJ/m ²	ISO 179/1eU
23°C	53	kJ/m ²	ISO 179/1eU
Notched Izod Impact (23°C)	38	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	159	°C	ISO 75-2/A
Injection	Nominal Value	Unit	
Drying Temperature	90.0 - 100	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.20	%	
Rear Temperature	220 - 230	°C	
Middle Temperature	230 - 240	°C	
Front Temperature	240 - 250	°C	
Nozzle Temperature	240 - 250	°C	
Processing (Melt) Temp	230 - 270	°C	

Mold Temperature	30.0 - 70.0	°C
Injection Pressure	60.0 - 120	MPa
Holding Pressure	40.0 - 80.0	MPa
Back Pressure	0.00 - 3.00	MPa

Injection instructions

Feed Temperature: 20 to 50°CZone 4 Temperature: 250°C

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection.All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519
Phone: +86 13424755533
Email: sales@su-jiao.com
No. 215, Lianhe North Road, Fengxian District, Shanghai, China

