

Technical Data

Product Description

Material code according to ISO 1043-1: PP Polypropylene with 60 weight percent ash content, long glass fibers reinforced, low emission. Concentrate, 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

General

Material Status	• Commercial: Active		
Search for UL Yellow Card	• Celanese Corporation • Celstran®		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber		
Features	• Good Heat Resistance	• Low Emissions	
Uses	• Automotive Applications	• Color Concentrates	
Forms	• Pellets		
Processing Method	• Injection Molding		
Multi-Point Data	• Isothermal Stress vs. Strain (ISO 11403-1)	• Secant Modulus vs. Strain (ISO 11403-1)	• Specific Volume vs Temperature (ISO 11403-2)

Physical	Nominal Value Unit	Test Method
Density	1.43 g/cm ³	ISO 1183
Mechanical	Nominal Value Unit	Test Method
Tensile Modulus	15000 MPa	ISO 527-2/1A
Tensile Stress (Break)	145 MPa	ISO 527-2/1A/5
Tensile Strain (Break)	1.5 %	ISO 527-2/1A/5
Flexural Modulus		ISO 178
23°C	16000 MPa	
80°C	11000 MPa	
Flexural Stress		ISO 178
23°C	240 MPa	
80°C	136 MPa	
Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength		ISO 179/1eA
-30°C	38 kJ/m ²	
23°C	33 kJ/m ²	
Charpy Unnotched Impact Strength		ISO 179/1eU
-30°C	70 kJ/m ²	
23°C	68 kJ/m ²	
Thermal	Nominal Value Unit	Test Method
Heat Deflection Temperature		ISO 75-2/A
1.8 MPa, Unannealed	160 °C	
Melting Temperature ²	168 °C	ISO 11357-3
Flammability	Nominal Value Unit	Test Method
Burning Rate ³ (1.00 mm)	30 mm/min	ISO 3795
Additional Information	Nominal Value Unit	Test Method
Emission of Organic Compounds	30.0 µgC/g	VDA 277
Odor	3.50	VDA 270
Thermal Desorption Analysis of Organic Emissions	41.0 GHz	VDA 278



Celstran® PP-GF60-0453 P10/10

Polypropylene

Celanese Corporation

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Injection	Nominal Value Unit
Drying Temperature	90 to 100 °C
Drying Time	2.0 hr
Suggested Max Moisture	0.20 %
Injection Feed Temperature	20 to 50 °C
Rear Temperature	220 to 240 °C
Middle Temperature	230 to 240 °C
Front Temperature	240 to 250 °C
Injection Zone 4 Temperature	240 to 260 °C
Nozzle Temperature	240 to 260 °C
Processing (Melt) Temp	230 to 270 °C
Mold Temperature	30 to 70 °C
Injection Rate	Slow
Back Pressure	< 3.00 MPa
Hot Runner	230 to 270 °C
Screw Speed	
4.00 cm	50
5.50 cm	35
7.50 cm	25

Notes

¹ Typical properties: these are not to be construed as specifications.

² 10°C/min

³ FMVSS 302



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Where to Buy

Supplier

Celanese Corporation

Florence, KY USA

Telephone: 800-833-4882

Web: <http://www.celanese.com/engineered-materials>

Distributor

Amco Polymers

Telephone: 800-262-6685

Web: <http://www.amcopolymers.com/>

Availability: North America

Channel Prime Alliance

Telephone: 800-247-8038

Web: <http://www.channelpa.com/>

Availability: North America

Entec Polymers

Telephone: 800-375-5440

Web: <http://www.entecpolymers.com/>

Availability: North America

RESINEX Group

RESINEX is a Pan European distribution company. Contact RESINEX for availability of individual products by country.

Telephone: +32-14-672511

Web: <http://www.resinex.com/>

Availability: Europe

