

Technical Data

Product Description

Material code according to ISO 1043-1: PP Heat stabilized polypropylene reinforced with 30 weight percent long glass fibers. The fibers are chemically coupled to the polypropylene matrix. The impact properties are enhanced. 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

Material Status	• Commercial: Active
Literature ¹	• Technical Datasheet (English)
Search for UL Yellow Card	• Celanese Corporation • Celstran®
Availability	• Asia Pacific • Europe • North America
Filler / Reinforcement	• Long Glass Fiber, 30% Filler by Weight
Additive	• Heat Stabilizer
Features	• Chemically Coupled • Good Isotropy • High Strength • Creep Resistant • Heat Stabilized • Low Temperature Impact Resistance • Good Impact Resistance • High Stiffness • Low Warpage
Uses	• Automotive Applications
RoHS Compliance	• Contact Manufacturer
Forms	• Pellets
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PP

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.12 g/cm ³	1.12 g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	0.20 %	0.20 %	
Flow	0.10 %	0.10 %	

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	914000 psi	6300 MPa	ISO 527-2/1A
Tensile Stress (Break)	16000 psi	110 MPa	ISO 527-2/1A/5
Tensile Strain (Break)	2.3 %	2.3 %	ISO 527-2/1A/5
Flexural Modulus			ISO 178
73°F (23°C)	943000 psi	6500 MPa	
176°F (80°C)	638000 psi	4400 MPa	
Flexural Stress			ISO 178
73°F (23°C)	23200 psi	160 MPa	
176°F (80°C)	12300 psi	85.0 MPa	

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	14 ft·lb/in ²	29 kJ/m ²	
73°F (23°C)	14 ft·lb/in ²	30 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	38 ft·lb/in ²	80 kJ/m ²	
73°F (23°C)	33 ft·lb/in ²	70 kJ/m ²	
Unnotched Izod Impact Strength (73°F (23°C))	26 ft·lb/in ²	55 kJ/m ²	ISO 180/1U

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
264 psi (1.8 MPa), Unannealed	316 °F	158 °C	ISO 75-2/A
1160 psi (8.0 MPa), Unannealed	248 °F	120 °C	ISO 75-2/C



Celstran® PP-GF30-0501P10

Polypropylene

Celanese Corporation

PROSPECTOR®

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Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating (0.04 in (1.0 mm))	HB	HB	UL 94

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	194 to 212 °F	90 to 100 °C
Drying Time	4.0 hr	4.0 hr
Suggested Max Moisture	0.20 %	0.20 %
Rear Temperature	428 to 446 °F	220 to 230 °C
Middle Temperature	446 to 464 °F	230 to 240 °C
Front Temperature	464 to 482 °F	240 to 250 °C
Nozzle Temperature	464 to 482 °F	240 to 250 °C
Processing (Melt) Temp	446 to 518 °F	230 to 270 °C
Mold Temperature	86 to 158 °F	30 to 70 °C
Injection Rate	Slow	Slow
Back Pressure	< 435 psi	< 3.00 MPa

Injection Notes

Feeding zone temperature: 20 to 50°C

Zone4 temperature: 25 to 260°C

Hot runner temperature: 230 to 270°C

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² Typical properties: these are not to be construed as specifications.



Where to Buy

Supplier

Celanese Corporation

Florence, KY USA

Telephone: 800-833-4882

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

Distributor

ALBIS Plastic

ALBIS Plastic is a global distribution and compounding company. Contact ALBIS Plastic for availability of individual products per country.

Telephone: +49-40-78105-0

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

Availability: China, Hong Kong

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

ESSE International - OMYA

ESSE International - OMYA is a Pan European distribution company. Contact ESSE International - OMYA for availability of individual products by country.

Telephone: +33-1-30-80-56-56

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

Availability: Spain, Switzerland

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

