



Celstran® PP-GF30-0405 P10

Celanese Corporation - Polypropylene

Tuesday, November 5, 2019

General Information

Product Description

Material code according to ISO 1043-1: PP Polypropylene reinforced with 30 weight percent long glass fibers. UV-stabilized. 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

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Filler / Reinforcement	• Long Glass Fiber, 30% Filler by Weight		
Additive	• UV Stabilizer		
Features	• Chemically Coupled • Creep Resistant • Good Isotropy	• High Stiffness • High Strength • Low Temperature Impact Resistance	• Low Warpage • UV Stabilized
Uses	• Automotive Applications		
Forms	• Pellets		
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• PP		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.13	g/cm ³	ISO 1183
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.02E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	18900	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.7	%	ISO 527-2/1A/5
Flexural Modulus			ISO 178
73°F	957000	psi	
176°F	696000	psi	
Flexural Stress			ISO 178
73°F	29000	psi	
176°F	16000	psi	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	15	ft·lb/in ²	
73°F	19	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	23	ft·lb/in ²	
73°F	33	ft·lb/in ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	316	°F	ISO 75-2/A
Heat Deflection Temperature (1160 psi, Unannealed)	252	°F	ISO 75-2/C

UL and the UL logo are trademarks of UL LLC © 2019. All Rights Reserved.

The information presented here was acquired by UL from the producer of the product or material or original information provider. However, UL assumes no responsibility or liability for the accuracy of the information contained on this website and strongly encourages that upon final product or material selection information is validated with the manufacturer. This website provides links to other websites owned by third parties. The content of such third party sites is not within our control, and we cannot and will not take responsibility for the information or content.

Celstran® PP-GF30-0405 P10
Celanese Corporation - Polypropylene

Thermal	Nominal Value	Unit	Test Method
Melting Temperature ²	331	°F	ISO 11357-3
Processing Information			
Injection	Nominal Value		Unit
Drying Temperature	194 to 212	°F	
Drying Time	4.0	hr	
Suggested Max Moisture	0.20	%	
Rear Temperature	428 to 446	°F	
Middle Temperature	446 to 464	°F	
Front Temperature	464 to 482	°F	
Nozzle Temperature	464 to 482	°F	
Processing (Melt) Temp	446 to 518	°F	
Mold Temperature	86 to 158	°F	
Injection Rate	Slow		
Back Pressure	< 435		psi

Injection Notes

Feeding zone temperature: 20 to 50°C

Zone4 temperature: 250 to 260°C

Hot runner temperature: 230 to 270°C

Notes

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

² 10°C/min