



Celstran® PP-GF20-02 Natural

Celanese Corporation - Polypropylene Homopolymer

Tuesday, November 5, 2019

General Information

Product Description

Material Code according to ISO 104-1: PP Polypropylene homopolymer reinforced with 20 weight percent long glass fibers. The fibers are chemically coupled to the polypropylene matrix. Then pellets are cylindrical and normally as well as the embedded fibers 10mm long

General

Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe • North America
Filler / Reinforcement	• Long Glass Fiber, 20% Filler by Weight
Features	• Chemically Coupled • Homopolymer
Appearance	• Natural Color
Forms	• Pellets
Resin ID (ISO 1043)	• PP

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.01	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	0.70	%	
Flow	0.50	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	783000	psi	ISO 527-2/1A
Tensile Stress (Break)	15200	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.8	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	747000	psi	ISO 178
Flexural Stress (73°F)	23200	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	11	ft-lb/in ²	ISO 179/1eA
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	315	°F	ISO 75-2/A
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.04 in)	HB		UL 94

Processing Information

Injection	Nominal Value	Unit
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

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Injection Notes

Feeding zone temperature: 20 to 50°C

Zone4 temperature: 250°C

Hot runner temperature: 230 to 270°C

Notes

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