Celstran® PP-GF20-03 natural

Celanese Corporation - Polypropylene Homopolymer

Tuesday, November 5, 2019

General Information

Product Description

Polypropylene homopolymer reinforced with 20 weight percent long glass fibers. The fibers are chemically coupled to the polyproylene matrix. Then pellets are cylindrical and normally as well as the embedded fibers 10mm long

Developed for aesthetic applications requirering good impact with a class A appearance.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Long Glass Fiber, 20% Filler by Weight		
Features	• Chemically Coupled • Good Impact Resistance	• Homopolymer • Pleasing Surface Appearance	
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• PP		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.01	g/cm³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	0.70	%	
Flow	0.47	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	783000	psi	ISO 527-2/1A/1
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/in²	ISO 179/1e
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (264 psi, Unannealed)	315	°F	ISO 75-2/A

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 Pressure	8700 to 17400	psi
Injection Rate	Slow	

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Injection	Nominal Value	Unit
Holding Pressure	5800 to 11600	psi
Back Pressure	0.00 to 435	psi

Injection Notes

Feed Temperature: 20 to 50°C
Zone 4 Temperature: 250°C
Manifold Temperature: 230 to 270°C

Notes

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