



Celstran® PP-GF40-23 Natural

Celanese Corporation - Polypropylene

Tuesday, November 5, 2019

General Information

Product Description

Celstran PP-GF40-23 is a 40% long glass fiber Polypropylene. The -23 can be used in food contact applications since all of the raw materials contained within are FDA compliant. This material imparts excellent impact and modulus properties that exceed that of short glass fiber polypropylene.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Filler / Reinforcement	• Long Glass Fiber, 40% Filler by Weight		
Features	• Food Contact Acceptable	• Good Impact Resistance	• Good Stiffness
Uses	• Non-specific Food Applications		
Appearance	• Natural Color		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.22	g/cm ³	ISO 1183
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
--	1.35E+6	psi	ISO 527-2/1A/1
176°F	1.02E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	19900	psi	ISO 527-2/1A/5
Tensile Stress (176°F)	11600	psi	ISO 527-2/1A
Tensile Strain			
Break	2.2	%	ISO 527-2/1A/5
Break, 176°F	2.4	%	ISO 527-2/1A
Flexural Modulus			ISO 178
73°F	1.35E+6	psi	
176°F	1.02E+6	psi	
Flexural Stress			ISO 178
73°F	31900	psi	
176°F	18100	psi	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	17	ft·lb/in ²	
73°F	14	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	24	ft·lb/in ²	
73°F	33	ft·lb/in ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	318	°F	ISO 75-2/A

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	194 to 212	°F

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Injection	Nominal Value	Unit
Drying Time	4.0	hr
Suggested Max Moisture	0.20	%
Rear Temperature	410 to 428	°F
Middle Temperature	428 to 446	°F
Front Temperature	446 to 464	°F
Nozzle Temperature	446 to 482	°F
Processing (Melt) Temp	446 to 482	°F
Mold Temperature	104 to 158	°F
Injection Rate	Slow	

Injection Notes

Zone 4 Temperature: 230 to 250°C

Feed Temperature: 20 to 50°C

Notes

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