Celstran® CFR-TP PP GF70-13

Celanese Corporation - Polypropylene

Tuesday, November 5, 2019

General Information

Product Description

Celstran® CFR-TP PP GF70-13 is a 70% E-glass fiber by weight PP (polypropylene) continuous fiber (uni-directional) reinforced thermoplastic composite tape. This material exhibits a high strength-to-weight ratio, excellent toughness and chemical resistance. It is well suited for industrial, automotive and sporting goods applications where cost and process ability are critical. The material is available in natural and black colors. Alternate tape widths and thicknesses may be available.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 70% Filler by Weight, 45% Filler by Volume		
Features	• Chemical Resistant	• Good Toughness	• High Strength
Uses	• Automotive Applications	• Industrial Applications	• Sporting Goods
Appearance	• Black	• Natural Color	
Forms	• Unidirectional Prepreg		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.66	g/cm³	ISO 1183
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [2]	4.92E+6	psi	ASTM D3039M
Tensile Strength [2]	135000	psi	ASTM D3039M
Tensile Elongation [2] (Break)	3.0	%	ASTM D3039M
Flexural Modulus [2]	4.82E+6	psi	ASTM D790
Flexural Strength [2]	87900	psi	ASTM D790
Flexural Elongation (Break) [2]	2.01		ASTM D790
Thermal	**Nominal Value**	**Unit**	**Test Method**
Glass Transition Temperature [3]	14.0	°F	ISO 11357-2
Melting Temperature [3]	343	°F	ISO 11357-3
CLTE - Flow [4] (73 to 122°F)	5.6E-6	in/in/°F	ISO 11359-2
CLTE - Transverse [4] (73 to 122°F)	3.7E-5	in/in/°F	ISO 11359-2
Thermal Conductivity			ASTM E1461
-- [5]	3.5	Btu·in/hr/ft²/°F	
-- [6]	4.8	Btu·in/hr/ft²/°F	
Additional Information	**Nominal Value**	**Unit**	
Fiber Areal Weight	188.6	lb/ream	
Tape Areal Weight	269.7	lb/ream	
Tape Thickness	9.8	mil	
Tape Width	12	in	

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Notes

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

[2] 0°, Tape

[3] 10°C/min

[4] above Tg

[5] Crossflow

[6] Flow