



Celstran® CFR-TP PPS GF60-01

Celanese Corporation - Polyphenylene Sulfide

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General Information

Product Description

Celstran® CFR-TP PPS GF60-01 is a 60% E-glass by weight PPS (polyphenylene sulfide) continuous fiber (uni-directional) reinforced thermoplastic composite tape. This material exhibits a high strength-to-weight ratio, excellent chemical and flame, smoke, and toxicity or (FST) performance, and long-term heat stability. It is well suited for aerospace, oil/gas and industrial applications where demanding chemical and FST performance is necessary. The E-glass fiber offers a lower cost solution as compared to other PPS materials reinforced with S-glass. This material is available in natural and black colors. Alternate tape widths and thicknesses may be available.

General

Material Status	• Experimental: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 60% Filler by Weight, 44% Filler by Volume		
Features	• Chemical Resistant	• Heat Aging Resistant	• High Strength
Uses	• Aerospace Applications	• Industrial Applications	• Sporting Goods
Forms	• Unidirectional Prepreg		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.89	g/cm ³	ISO 1183
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	5.03E+6	psi	ASTM D3039M
Tensile Strength ²	113000	psi	ASTM D3039M
Tensile Elongation ² (Break)	2.4	%	ASTM D3039M
Flexural Modulus ²	5.44E+6	psi	ASTM D790
Flexural Strength ²	126000	psi	ASTM D790
Flexural Elongation (Break) ²	3.22		ASTM D790
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature ³	194	°F	ISO 11357-2
Melting Temperature ³	536	°F	ISO 11357-3
Additional Information	Nominal Value	Unit	
Fiber Areal Weight	228.6	lb/ream	
Tape Areal Weight	381.0	lb/ream	
Tape Thickness	9.8	mil	
Tape Width	12	in	

Notes

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

² 0°, Tape

³ 10°C/min