



Celstran® CFR-TP PPS CF60-01

Celanese Corporation - Polyphenylene Sulfide

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General Information

Product Description

Celstran® CFR-TP PPS CF60-01 is a 60% carbon fiber 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, sporting goods and industrial applications where demanding weight, chemical and FST performance is necessary. Alternate tape widths and thicknesses may be available.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
Filler / Reinforcement	• Asia Pacific • Carbon Fiber, 60% Filler by Weight, 53% 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	1.55	g/cm ³	ISO 1183
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	1.46E+7	psi	ASTM D3039M
Tensile Strength ²	294000	psi	ASTM D3039M
Tensile Elongation ² (Break)	1.8	%	ASTM D3039M
Flexural Modulus ²	1.52E+7	psi	ASTM D790
Flexural Strength ²	177000	psi	ASTM D790
Flexural Elongation (Break) ²	1.20		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	188.6	lb/ream	
Tape Areal Weight	269.7	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