



Celstran® CFR-TP PA6 CF60-03

Celanese Corporation - Polyamide 6

Monday, November 4, 2019

General Information

Product Description

Celstran® CFR-TP PA6 CF60-03 is a 60% carbon fiber by weight polyamide 6 (nylon 6) continuous fiber (uni-directional) reinforced thermoplastic composite tape. This material exhibits a high strength-to-weight ratio, excellent toughness and impact resistance. It is well suited for industrial, automotive, and sporting goods applications where strength and toughness are critical as well as ease of processing. 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	• Carbon Fiber, 60% Filler by Weight, 49% Filler by Volume
Features	• Good Impact Resistance • Good Processability • Good Toughness • High Strength
Uses	• Automotive Applications • Industrial Applications • Sporting Goods
Forms	• Unidirectional Prepreg

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.45	g/cm ³	ISO 1183
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	1.45E+7	psi	ASTM D3039M
Tensile Strength ²	277000	psi	ASTM D3039M
Tensile Elongation ² (Break)	1.8	%	ASTM D3039M
Flexural Modulus ²	1.42E+7	psi	ASTM D790
Flexural Strength ²	151000	psi	ASTM D790
Flexural Elongation (Break) ²	1.08		ASTM D790
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature ³	135	°F	ISO 11357-2
Melting Temperature ³	428	°F	ISO 11357-3
Additional Information	Nominal Value	Unit	
Fiber Areal Weight	71.9	lb/ream	
Tape Areal Weight	119.2	lb/ream	
Tape Thickness	5.1	mil	
Tape Width	11	in	

Notes

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

² 0°, Tape

³ 10°C/min