Hexcel® HexTow[™] PV42/850 Carbon Fiber

Category : Carbon , Carbon Fiber

Material Notes:

HexTow[™] PV42/850 (HS-CP-3300) carbon fiber is a continuous, high performance, intermediate modulus, PAN based fiber available in 12,000 (12K) filament count tows. This fiber has been designed for applications that require high composite tensile strength. The fiber can be sized to improve its handling characteristics. HexTow[™] PV42/850 (HS-CP-3300) fiber is suggested for use in filament winding for pressure vessels and other similar applications. The unique properties of HexTow[™] PV42/850 (HS-CP-3300) fiber allow structural designers to achieve higher safety margins for strength critical applications. Information provided by Hexcel

Order this product through the following link: http://www.lookpolymers.com/polymer_Hexcel-HexTow-PV42850-Carbon-Fiber.php

Physical Properties	Metric	English	Comments
Density	1.79 g/cc	0.0647 lb/in ³	
Filament Diameter	5.1 µm	5.1 µm	

Mechanical Properties	Metric	English	Comments	
Tensile Strength, Yield	3378 MPa	489900 psi	Typical epoxy composite property	
	5810 MPa	843000 psi	Typical fiber property	
Elongation at Break	1.9 %	1.9 %	Calculated from tow test data	
Tensile Modulus	178 GPa	25800 ksi	Typical epoxy composite property	
	292 GPa	42400 ksi	Typical fiber property; Chord 6000- 1000	
Flexural Modulus	148 GPa	21500 ksi	Typical epoxy composite property	
Shear Strength	93.0 MPa	13500 psi	Typical epoxy composite property; short-beam	

Component Elements Properties	Metric	English	Comments
Carbon, C	94 %	94 %	

Descriptive Properties	Value	Comments
Approximate Yield (m/g)	2.24	
Fiber Volume (%)	62	
Tow Cross-Sectional Area (mm2)	0.25	
Weight/Length (g/m)	0.446	12К



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