

CARBON GRAPHITE

CM

BIDIRECTIONAL WOVEN CARBON GRAPHITE



282

584

Woven graphite is a fabric introduced in recent years which has become an excellent alternative to fiberglass and Kevlar - only mills thick with great strength. In addition to its great strength, graphite fabric also has very low density and is very stiff. Although it is quite costly, the material saving is appreciable since only one course of graphite is required for 3 or 4 of fiberglass. It cuts considerably easier than Kevlar. Graphite The excellent qualities of the graphite fabric itself give it an immediate waiting market in the aircraft building field.

Graphite fabric is stocked in the three different styles shown below. Other weights and weaves of graphite are available on a special order basis. Be sure to specify the graphite style when ordering. These carbon graphite cloths are not pre-preg fabrics.

* Warning folding for shipment can damage the filaments in the fabric. Folding will be done at customers' risk and request only.

CARBON FIBER								
Style	Part No.	Weight Oz./Sq Yd.	Width	Thick-ness	W x F	Weave	Tensile Strength (KSI)	Price /yd.
282	01-00971	5.8	50"	.007"	12.5x12.5	Plain	675	\$28.65
282	01-28260	5.8	60"	.007"	12.5x12.5	Plain	675	\$35.50

TWILL 2 X 2 WEAVE								
Style	Part No.	Weight Oz./Sq Yd.	Width	Thick-ness	W x F	Weave	Tensile Strength (KSI)	Price /yd.
284	01-00602	5.7	50"	.007"	12X12	2/2 Twill 3K	675	\$29.50
284	01-01232	5.8	60"	.007"	12X12	2/2 Twill 3K	675	\$35.50

STANDARD E-GLASS & FIBERGLASS TAPES



Tapes are woven from 8.7 oz./sq. yd. fiberglass cloth, .012" thick, into narrow widths with non-raveling selvage. Perfect for glassing seams, corners, edges fan for repair jobs. Sold in 50 yd. rolls.

- 1" Width 26 Warp, 17 Fill P/N 01-06610 Roll **\$21.50**
- 2" Width 40 Warp, 17 Fill P/N 01-06600 Roll **\$26.50**
- 3" Width 58 Warp, 17 Fill P/N 01-06700 Roll **\$33.75**
- 4" Width 76 Warp, 17 Fill P/N 01-06705 Roll **\$42.60**
- 6" Width 106 Warp, 17 Fill P/N 01-06710 Roll **\$76.85**
- 12" Width 218 Warp, 17 Fill P/N 01-06720 Roll **\$104.75**



UNIDIRECTIONAL CARBON 50K

Carbon Fiber Fabric Unidirectional 50k 200gsm/ 5.9oz 50" Zoltec PX35 Fiber.

Specifications

- Tensile Strength: 600ksi
- Tensile Modulus: 35msi
- Electrical Conductivity: 0.00061 ohm-in
- Density: 0.065 lb/in³
- Fiber Diameter: 0.283 mils
- Carbon Content: 95%

- Yield: 397 ft/lb
- Spool Weight: 12 lb, 24 lb
- Spool Length: 1640 yd, 3280 yd.....P/N 03-00171**\$458.00**

UNIDIRECTIONAL CARBON TAPES



These carbon fiber tapes are used to add stiffness and tensile strength in one direction without adding significant thickness or weight. These West System tapes have 12 carbon fiber bundles per inch of tape width. The bundles are held together with a polyester fill thread making the tape easy to handle. These tapes are compatible with epoxies but not with vinylester or polyester resins. #702 tape is 1.5" wide and #703 tape is 3" wide.

Style No.	Width (in.)	Length	Part No.	Price/roll
702	1.5"	12 ft.roll	01-00238	\$59.85
703	3"	12 ft.roll	01-00240	\$76.56
703	3"	50 ft.roll	01-00241	\$206.40

CARBON FIBER TUBING



Aircraft Spruce offers structural tubing and structural torsion tubing, engineered and built to meet your exact specifications and tolerances. Structural Torsion Tubing, in continuous lengths up to 40', is manufactured with the computer-controlled, fully-automated Helical Winding Process. We offer a broad array of Fiber Options and tubing wall thickness and diameter is determined on a case-by-case basis to suit your application.

Special Order Sold in 10 ft. lengths only (can cut for UPS shipment).

* The image shows two types of finish on this product. The standing tube is sanded and painted with a gloss finish. This is available for an additional cost of **\$273.95**. The tube lying on its side is a rough surface, which will be received when product is purchased.

D of Tube	Wall Thickness	Length	Part No.	Price
0.5"	.100	10'	03-00171	\$458.00
0.75"	.100	10'	03-00172	\$458.00
1.00"	.120"	10'	03-00173	\$357.95
1.25"	.120"	10'	03-00174	\$515.00
1.5"	.120"	10'	03-00175	\$414.95
1.75"	.120"	10'	03-00176	\$565.00
2"	.120"	10'	03-00177	\$464.95
2.5"	.120"	10'	03-00178	\$599.95
3"	.120"	10'	03-00179	\$689.99

CARBON GRAPHITE YARN TOW



High strength (470,000 PSI) carbon fibers are used as reinforcement in high performance structural composites for aircraft applications, recreational and industrial products.

Carbon fiber filaments are finer than a human hair. These filaments are bundled together to make a fiber of 3,000, 6,000 or 12,000 filaments which is called a "tow". The tow is sized with an epoxy compatible material to improve the handling characteristics. It is then wound on a cardboard core holding from 4 to 6 pounds of fiber. 1 Lb. spool.

Actual Size	Part No.	Approx. Yield	Roll Size	Price/Spool
3K Tow	01-00343	2470 Yd./Lb.	4 Lb.	\$394.00
6K Tow	01-00307	1229 Yd./Lb.	1 Lb.	\$79.65
12K Tow	01-00004	621 Yd./Lb.	2 Lb.	\$149.95
12K Tow	01-00345	621 Yd./Lb.	4 Lb.	\$298.95

It appears that the 6K tow will prove most practical for homebuilding applications. This size will be available in the small units shown. The 3K and 12K sizes are offered in full spools only. The 3K tow is used primarily by weavers. The 12K is difficult to wet out but can be done by diligent brushing.