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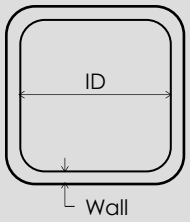
Material Specifications

Carbon Fiber Rectangular Tube

Comprised of carbon fiber braid and Unidirectional Fabrics our rectangular tube is ideal for building light weight frames and structures such as trusses. Engineered to be much stronger under torsional and side loading than pultruded tubing and significantly lighter. Designed so that the unidirectional layers are captured in a sandwich structure, eliminating longitudinal cracking and splitting.

STANDARD SIZES

SIZES	WALL THICKNESS	WEIGHT (lbs/ft)	(also available in thicker wall) WALL THICKNESS	WEIGHT (lbs/ft)
¾" x ¾" (0.790 x 0.790 ± 0.010) ID	0.050" (± 0.015)	0.07	0.075" (± 0.015)	0.13
1" x 1" (1.032 x 1.032 ± 0.010) ID	0.050" (± 0.015)	0.10	0.075" (± 0.015)	0.15
1" x 2" (0.990 x 1.980 ± 0.010) ID	0.050" (± 0.015)	0.14	0.075" (± 0.015)	0.23
2" x 2" (1.970 x 1.970 ± 0.030) ID	0.065" (± 0.015)	0.26	0.085" (± 0.015)	0.36
2" x 4" (2.13 x 4.36 ± 0.030) ID	0.085" (± 0.015)	0.60	0.120" (± 0.015)	0.85
3" x 3" (3.163 x 3.163 ± 0.030) ID	0.085" (± 0.015)	0.60	0.120" (± 0.015)	0.85



Lengths: 96", 72", 48", 24" (-0, +0.5) (96" may be up to 98")

Finishes: Natural, wet, shiny finish, Textured finish

Additional Options

- Custom Sizes
- Custom Lengths
- Custom Wall Thickness
- CNC Machining
- Design and Engineering Services

TECHNICAL SPECIFICATIONS

Properties of Braid Fiber
Tensile Strength: 640 ksi
Modulus of Elasticity: 34 Msi

Properties of UNI Fiber
Tensile Strength: 640 ksi
Modulus of Elasticity: 34 Msi

Resin
Epoxy resin that accounts for approximately 50% of the composition $W_f \approx 50\%$

Lay Up Schedule
± 45° bi-axial CF braid
0° uni-directional CF
± 45° bi-axial CF braid
$[\pm 45/\overline{0}]_s$