



Grade UTR Composite Tubing

Pultruded Round & Square Tubing

- UL® Recognized
- Highly Flame-Resistant
- Arc- and Track-Resistant
- Uncommon Dimensional Stability
- Strong & Durable, yet Easily Cut and Chamfered
- Cost-Effective

Grade UTR pultruded tubing is a fiberglass-reinforced thermoset polyester tube. It meets the requirements of NEMA grade GPO-3, as well as being recognized by UL.

Highly flame-, arc-, and track-resistant, UTR pultruded tubing provides reliability in a wide range of applications. The product exhibits exceptional dimensional stability and is impervious to high humidity or immersion. Also, because it is constructed of a reinforced plastic composite, it is electrically non-conductive.

This tubing has a UL index rating of 130° C electrical and 160° C mechanical. Its burst strength is 1,200 to 1,400 psi, yet it is easily chamfered and cut with carbide or diamond saws.

Stock Sizes

Pultruded tubing is available in a variety of stocked sizes. (See table on back for more detailed information).

Custom Performance/Standard Sizes

By changing the raw materials, stock sizes can be modified to meet your specific performance requirements. No new tooling is required.

Custom Tubing Available

Custom tubing can also be produced to meet your specific requirements such as:

- High tensile strength
- High flexural strength
- Increased stiffness
- UV stability
- Custom colors (ask about Alpha color options)
- Corrosion and chemical resistance
- Custom shapes





Grade UTR Composite Tubing

	Test Procedure	Units	Typical Value
Mechanical Properties			
*Tensile Strength	D638-97	Psi x 10E3	30.7
*Tensile Modulus	D638-97	Psi x 10E6	2.28
*Flexural Strength (Tube)	D790-97A	lbs.	134
*Flexural Modulus (Tube)	D790-97A	lbs/in	4180
*Compressive Strength (Tube)	D2412-96A	lbs.	126
*Compressive Modulus (Tube)	D2412-96A	lbs/in/in	3930
Burst Strength	D1180-57	Psi	1300
Water Absorption	D570	% by wgt.	0.5
Electrical Properties			
Arc Resistance	ASTM D495	Sec.	150
Inclined Plane Track Resistance	ASTN D2303	Min.	300
Flame-Thermal Properties			
Flame Resistance	NEMA L1-1		Class 0
UL Temperature Index	UL 746B		
Electrical		°C	130
Mechanical		°C	160

* Based on .75" OD tube, .050" wall thickness



Stock Sizes in Inches			
Tube Size	Part Number	Nominal OD	Nominal ID
1/2	F800608	.513	.406
1/2	F810608	.500	.375
3/4	F801012	.750	.625
3/4	F811012	.733	.632
1	F801316	.995	.816
1	F811316	.990	.824
1 1/16	F801417	1.070	.890
1 1/4	F801720	1.250	1.071
1 1/4	F811620	1.240	1.012
1 1/2	F802024	1.494	1.250
1 1/2	F812024	1.494	1.262
1 5/16	F802125	1.570	1.330
1 3/4	F802428	1.742	1.500
1 3/4	F812428	1.742	1.512
2	F802832	1.994	1.750
2	F812832	1.986	1.762
2	F842832	1.994	1.744
2 5/16	F803137	2.286	1.926
2 1/2	F803440	2.492	2.125
2 1/2	F813440	2.483	2.146
2 1/2	F830190	2.492	2.116
2 13/16	F803945	2.786	2.411
3	F804248	2.992	2.617

Rectangular and Square Tubing				
Tube Size	Part Number	Nominal OD	Nominal ID	Wall Thickness
1 1/2	FR22024	1.500	1.250	.125
2	FR22432	2.000	1.500	.250

Tolerances – ASTM (abbreviated)	
OD/ID	Wall Thickness
± .010", under 2" diameter	± .010", under .067" wall
± .020", 2" diameter & over	± .015", for .067" wall & over

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