



## 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).

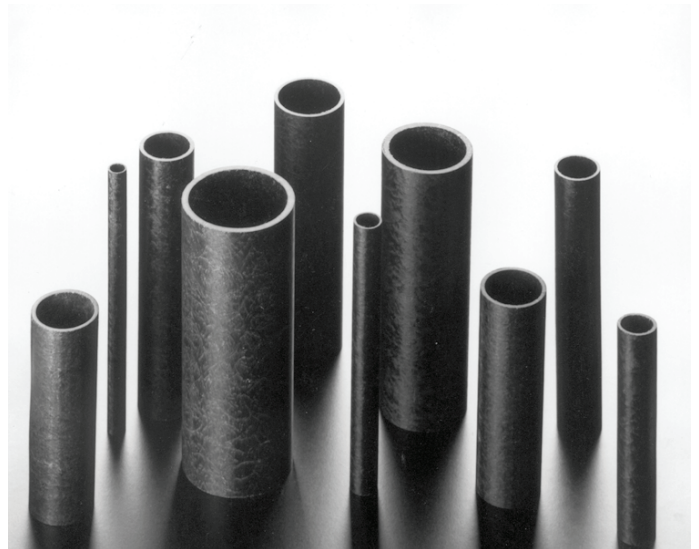
### Custom Performance/Standard Sizes

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
<b>Mechanical Properties</b>			
*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
<b>Electrical Properties</b>			
Arc Resistance	ASTM D495	Sec.	150
Inclined Plane Track Resistance	ASTN D2303	Min.	300
<b>Flame-Thermal Properties</b>			
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
3/4	F851012	.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 9/16	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

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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