

Frequently Asked Questions

Q: *“How do convolute wound and braided composites compare?”*

A: In general, convolute wound and braided composite materials can be considered equivalent materials. Both materials are composed of e-glass fiberglass filaments and a U.L. listed G-10 epoxy resin system. The primary difference between materials is the method of manufacturing each.

With respect to technical specifications, basic comparative data is as follows:

Specification	Convolute Wound Composites	Braided Composites
NEMA Grade	G-10	G-10
ID Range:		
Minimum	0.110	0.50
Maximum	16.5	30.0
Wall Thickness:		
Minimum	0.031	0.031
Maximum	1.000	1.000
Water Absorption, % 24 Hours – Wall Thickness of 1/16”	0.13	0.16
Density GMS/CC	1.88	2.0
Tensile Strength – Up to 2” OD	43,000	50,000
Compressive Strength, PSI, Axial All Sizes	32,000	42,000
Dielectric Strength – Short Time – Wall Thickness:		
1/16”	540	540
1/8”	385	385
Dissipation Factor – 10 ⁶ Cycles	0.013	0.009
Dielectric Constant – 10 ⁶ Cycles	4.8	4.15

103 Industrial Park Dr. P.O. Box 176 Walkerton, IN 46574 1.800.918.9261

Phone: 219.586.3145 Fax: 219.234.2723 Email: sales@polygoncompany.com

