

Convolute Rolled Tube Products – All Resins, Glass Fabric Substrates

Epoxy Resins – Glass Fabric Substrates							
Grade	RT130	RT130M	RT130X	RT500	RT500F	RT500M	RT500X
NEMA ¹	FR-4			G-10			
Color	NA/BK ²	NA (GRN)/ BK/WHT	NA/BK	NA			

Epoxy Resins – Glass Fabric Substrates (continued)						
Grade	RT511	RT511F	RT511H	RT511M	RT521M	RT571
NEMA ¹	G-10 ³					G-10
Color	NA					

Phenolic, Melamine and Silicone Resins – Glass Fabric Substrates									
Grade	RT504	RT504F	RT504M	RT505	RT505F	RT507	RT507F	RT509	RT509F
Resin System	Phenolic			Melamine		Silicone		Melamine	
NEMA ¹	G-3 ⁴			G-5		G-7		G-9	
Color	NA								

Inside Diameter		Wall Thickness ^A		Outside Diameter	Maximum
Minimum ^C	Minimum	Minimum ^C	Maximum	Maximum	Length ^B
0.125	0.186	0.031	0.203	0.500	18
0.187	0.249	0.031	0.218	0.625	36
0.250	0.374	0.031	0.250	0.750	36
0.375	0.624	0.031	1.062	2.500	48
0.625	1.249	0.031	1.562	3.750	48
1.250	2.999	0.031	2.000	7.000	48
3.000	4.874	0.047	2.000	7.500	48
4.875	8.999	0.062	2.000	13.000	48
9.000	23.999	0.094	2.000	28.000	48
24.000	29.999	0.125	2.000	34.000	48
30.000	48.000	0.156	2.000	52.000	48

I. Special Exceptions – (For tables above)		
<p>A. Specifying Inside Diameter and Wall Thickness is not offered in any grade where the outside of the tube is unfinished or requires lathe turning.</p>		
<p>B. Supplied at: Random Length = No lengths less than 12" on a 18", 18" on a 24", 30" on a 36" or 42" on a 48" standard length. Non-Trimmed is considered a random length but not trimmed to allow for maximum customer yield. Minimum Length is considered the specified length with plus or minus 1.000" allowance Cut-To-Length is: (Tube must be a finished OD) 6" - 48" cut length with maximum Outside Diameter of 0.250" - 5.000"; Tolerance of ± 0.125" (May cut all – 0.250" or all + 0.250") 12" - 48" cut length with maximum Outside Diameter of 5.001" - 18.000"; Tolerance of ± 0.250" (May cut all – 0.500" or all + 0.500") 18" - 48" cut length with maximum Outside Diameter of 18.001" - 24.000"; Tolerance of ± 0.250" (May cut all – 0.500" or all + 0.500") All grades of micro ID tubing (less than 0.188" ID) are offered as random length only. Maximum Outside Diameter is 36.000" for trimmed length. Maximum Wall for any trimmed tube is 4.0"</p>		
<p>C. Additional Restrictions and Restricted Grades: RT130M, RT500M, RT505, RT507, RT509, RT511M and RT521M (Minimum Wall Thickness of 0.094" for Inside Diameters Ranging from 0.312" – 0.749"), (Minimum Wall Thickness of 0.062" for Inside Diameters Ranging from 0.750" – 1.254"). IDs 2.000" to 3.000" with Wall Thicknesses less than 0.047" are only offered in RT500F, RT500X, RT511F no minimum length. Foil Lined Tubes are offered in RT500M or RT511M with a Minimum Wall of 0.125", Minimum ID of 4.000" and Finished Outside.</p>		

II. Outside Diameter – Available Finishes		
Outside Diameter		
Minimum	Maximum	Finish
0.156	9.000	Centerless Ground (Standard), As Wound Available
4.875	9.000	Lathe Turned (Non-Standard), Contact Customer Service
9.001	24.000	Lathe Turned (Standard), As Wound Available
24.001	Maximum	As Wound (No Outside Finishing Available)

NOTE: Contact Customer Service for sizes and tolerances not listed. Micro ID Tubing (IDs less than 0.187") is offered in RT130X and RT500X. Industrial Standards related to tolerance, finish and workmanship is assumed, unless otherwise specified. Walls greater than 0.500" thick are subject to check marks and/or cracks in the wall.

¹ For information on Specifications and Standards, see "Tube – Specification Cross Reference".
² RT130 black is subject to availability or minimum order quantity.
³ NEMA Standard LI-1 and MIL-I-24768 do not recognize a high temperature epoxy glass convolute rolled tube form, but, these materials are manufactured with a high temperature epoxy resin system, commonly used for NEMA G-11 and MIL-I-24768/27, type GEB sheet products, and do have improved thermal properties at elevated temperatures.
⁴ G-3 tube grades, although a recognized form NEMA, ASTM and MIL-I-24768 standards, has no criteria, and is only defined in IEC 61212-3-1; grade PF-GC-21.