


**ENGINEERING DATA SHEET**  
**GRADE: SPAULDITE® T-324NP-TR TUBING**

Spauldite® Grade T-324NP-TR is a cotton paper base tube made from a special phenolic resin developed for mechanical applications. This special Spauldite® tubing grade is similar to NEMA XX and MIL-P-79 Type PBG and exceeds these specifications.

Standard tube sizes available include inside diameters from .093 – 22.000 inches and outside diameters to 24.000 inches. Wall thickness from .020 – 1.500 inches are available depending on the inside diameter. 48-inch lengths are standard above .187 inch I.D. 36-inch lengths will be provided above .124 inch I.D. 18-inch lengths will be provided for I.D.'s .124 inches and below.

Typical values shown on the preliminary data sheet are offered as preliminary data subject to revision as more test data becomes available.

**PROPERTY CHARACTERISTICS**

PROPERTY	ASTM TEST METHOD	CONDITIONING & TYPE OF TEST	WALL THICKNESS (INCHES)	AVERAGE TYPICAL VALUES <sup>1</sup>		TARGET REQUIREMENTS	
				ENGLISH	SI	ENGLISH	SI
<b>ELECTRICAL</b>							
Dielectric Strength Perpendicular	D-348	A (S/T)	.062	450 V/M	17.7kV/mm	NR	NR
<b>MECHANICAL</b>							
Tensile Strength	D-348	A	.062	12.5 ksi	86.2 MPa	NR	NR
Compressive Strength Axial	D-348	A	.062	13.5 ksi	93.1 MPa	≥13.0 ksi	≥89.6 MPa
<b>PHYSICAL</b>							
Density	D-348	A	.062	.043 lb/in <sup>3</sup>	1.18 g/cm <sup>3</sup>	.038-.043 lb/in <sup>3</sup>	1.05-1.18 g/cm <sup>3</sup>
Water Absorption	D-348	D-24/23	.062	2.1%	2.1%	≤3.0%	≤3.0%

<sup>1</sup> Data shown is based on tube size 1.000" I.D. x 1.125" O.D.

*"To the best of our knowledge the information contained herein is accurate; however, Spaulding Composites Company, Inc. does not accept any liability regarding the accuracy or completeness of such information. Further, such information is based on standard base material and thus may change if the product ordered by purchaser requires further processing of base material by us and/or the purchaser. Purchaser has the sole responsibility in determining the suitability of any material described herein for the use contemplated and the processing of such material by purchaser."*