



ENGINEERING DATA SHEET GRADE: SPAULDITE® G-10-NT TUBING

Reprint of: _____ Issued: _____

Spaldite® Grade G-10-NT is a fine weave glass fabric base, rolled-type tube using epoxy resin designed for cryogenic applications requiring high mechanical strength, low moisture absorption and low air permeation properties.

Spaulding has a long history of supplying laminate sheet and tubing materials for cryogenic applications. Spaldite® Grades G-10-NT, G-10-CR, G-11-NT and G-11-CR have been recognized as the standard epoxy glass materials for cryogenic applications. This recognition by the National Bureau of Standards was based on extensive testing of laminate sheet at cryogenic temperatures by Oak Ridge National Laboratories, Spaulding Composites Inc. and others.

MAJOR FEATURES

- Good mechanical and physical properties at cryogenic temperatures
- Long history of successful use in cryogenic applications
- Formula accepted as the standard for cryogenic epoxy glass laminates

PROPERTY CHARACTERISTICS

PROPERTY	ASTM TEST METHOD	CONDITIONING & TYPE OF TEST	WALL THICKNESS (INCHES)	AVERAGE TYPICAL VALUES ¹		NEMA G-10 or MIL-I-24768/2	
				ENGLISH	SI	ENGLISH	SI
ELECTRICAL							
Dielectric Strength Perpendicular	D-348	A	.125	400 V/M	15.7kV/mm	≥250 V/M	≥9.8 kV/mm
MECHANICAL							
Tensile Strength	D-348	A	.125	40.0 ksi	275.8 MPa	NA	NA
Compressive Strength Axial	D-348	A	.125	38.0 ksi	262.0 MPa	≥20.0 ksi	≥137.9 MPa
PHYSICAL							
Density	D-348	A	.125	.063 lb/in ³	1.75 g/cm ³	≥.061 lb/in ³	≥1.70 g/cm ³
Water Absorption	D-348	D-24/23	.125	.04%	.04%	≤.70%	≤.70%

¹ Data shown is based on tube size 0.875" 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."