



Global Thermoset Composite Solutions

## RT511M

# TECHNICAL DATA BULLETIN

GRADE: RT511M

NEMA GRADE: G-11, type

U.L. LISTED: Y

DESCRIPTION: RT511M meets all of the requirements of NEMA G-10, with the added feature of having excellent strength at elevated temperatures. Typical applications include bushings, spacers and structural parts for power generation equipment. It is made with a medium weight glass fabric substrate. RT511M also complies with MIL-I-24768/2, Type GEE and ASTM D709 Type IV Grade G-10.

## TYPICAL PROPERTIES

	UNITS	VALUE <sup>1</sup>		
		Specimen Tested (ID x OD)		
			0.75" x 1.00"	
<b>PHYSICAL PROPERTIES</b>				
<b>Specific Gravity</b>	-		1.86	
<b>Rockwell Hardness</b>	M Scale		100	
<b>Moisture Absorption</b> Condition D <sub>1</sub> -24/23	%		0.14	
<b>Tensile Strength</b> Condition A	psi		37,000	
<b>Compressive Strength</b> Condition A	psi		34,000	



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## TYPICAL PROPERTIES (continued)

	UNITS	VALUE <sup>1</sup>		
		Specimen Tested (ID x OD)		
			0.75" x 1.00"	
<b>THERMAL PROPERTIES</b>				
<b>Temperature Index</b> <sup>2</sup>				
Electrical / Mechanical	°C		200 / 200	
<b>Flammability Rtg. (UL 94)</b> Condition A	Class		HB	
<b>ELECTRICAL PROPERTIES</b>				
<b>Dissipation Factor</b> Condition A	-		0.028	
Condition D-24/23	-		0.038	
Condition D-48/50	-		0.045	
<b>Permittivity</b> Condition A	-		4.36	
Condition D-24/23	-		4.45	
Condition D-48/50	-		4.66	
<b>Breakdown Voltage</b> Condition A	kVolts		55	
Condition D-48/50	kVolts		50	
<b>Electric Strength</b> Condition A	Volts/mil		390	

<sup>1</sup> All testing performed to ASTM D-348 unless otherwise indicated.

<sup>2</sup> NEMA LI-6: This temperature is a recommendation only, and based upon experience in various applications. The maximum operating temperature is dependent upon the application and should be investigated prior to use.

At this time G-11 tubing grades are not recognized by NEMA; however, they are recognized by IEC 61212-3-1; grade EP-GC-22. This grade has equivalent electrical properties to G-10 tubing but with higher mechanical strength at elevated temperatures.

This data, while believed to be accurate and based on reliable analytical methods, is for informational purposes only. The terms and conditions of the agreement under which it is sold will govern any sales of this product. Data supplied above are "typical values"; not to be considered "specification values".

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Specification writers: Contact Norplex-Micarta for specification values before submission.