



Global Thermoset Composite Solutions

RT511

TECHNICAL DATA BULLETIN

GRADE: RT511

NEMA GRADE: G-11, type

U.L. LISTED: N

DESCRIPTION: RT511 uses a heavy weave glass fabric substrate meeting all of the requirements of NEMA G-10, with the added feature of having excellent strength at elevated temperatures. Additional versions of the RT511 series are available in medium and fine weave fabrics. Typical applications include bushings, spacers and structural parts for power generation equipment. RT511 also complies with MIL-I-24768/2, Type GEE and ASTM D709 Type IV Grade G-10.

TYPICAL PROPERTIES

| | UNITS | VALUE ¹ | | |
|--|---------|---------------------------|---------------|--|
| | | Specimen Tested (ID x OD) | | |
| | | | 0.75" x 1.00" | |
| PHYSICAL PROPERTIES | | | | |
| Specific Gravity | - | | 1.82 | |
| Rockwell Hardness | M Scale | | 100 | |
| Moisture Absorption Condition D ₁ -24/23 | % | | 0.24 | |
| Compressive Strength Condition A | psi | | 38,500 | |



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TYPICAL PROPERTIES (continued)

| | UNITS | VALUE ¹ | | |
|--|-----------|---------------------------|---------------|--|
| | | Specimen Tested (ID x OD) | | |
| | | | 0.75" x 1.00" | |
| THERMAL PROPERTIES | | | | |
| Temperature Index ² | | | | |
| Electrical / Mechanical | °C | | 200 / 200 | |
| Flammability Rtg. (UL 94) Condition A | Class | | HB | |
| ELECTRICAL PROPERTIES | | | | |
| Dissipation Factor Condition A | - | | 0.030 | |
| Condition D-24/23 | - | | 0.040 | |
| Permittivity Condition A | - | | 4.41 | |
| Condition D-24/23 | - | | 4.48 | |
| Electric Strength Condition A | Volts/mil | | 400 | |

¹ All testing performed to ASTM D-348 unless otherwise indicated.

² 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".

It is the responsibility of the users of this information to make sure that they have the latest version of this TDB, and are urged to contact Customer Service, or preferably our web site, www.norplex-micarta.com, to determine if information is the most current.

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