



## Ryertex Grade G10 TECHNICAL DATA BULLETIN

NEMA GRADE: G10 U. L. LISTED: Yes

**DESCRIPTION:** Ryertex G10 is a woven glass fabric composite combined with an epoxy resin system. This material contains bromine on the epoxy resin backbone. Ryertex CG10 meets or exceeds the requirements of MIL-I-24768/27, Type GEE-F.

**THICKNESS TESTED:** 0.062"; 0.125", 0.500"

## **TYPICAL PROPERTIES**

| GENERAL PHYSICAL PROPERTIES             | UNITS    | VALUE                      |
|---|----------|----------------------------|
| Specific Gravity                        | -        | 1.85                       |
| Moisture Absorption (O.062)             | %        | 0.10                       |
| Rockwell Hardness (0.500)               | M Scale  | 98                         |
| Flexural Strength (0.062)               | Psi      | LW - 65,000<br>CW - 52,000 |
| Flexural Modulus (0.062)                | Ksi      | LW - 2,900<br>CW - 2,600   |
| Tensile Strength (0.125)                | psi      | LW - 40,000<br>CW - 32,000 |
| Bond Strength (0.500)                   | Lb       | 2,300                      |
| Shear Strength (perpendicular – 0.062)  | Psi      | 21,500                     |
| Izod Impact Strength E-48/50 (0.500)    | Ft-lb/in | LW - 7.90<br>CW - 7.30     |
| Compressive Strength (flatwise – 0.500) | psi      | 66,000                     |

| THERMAL & ELECTRICAL PROPERTIES                 | UNITS                   | VALUE <sup>1</sup>             |
|---|-------------------------|--------------------------------|
| Maximum Operating Temperature                   | °C                      | 130-140 <sup>1</sup>           |
| Coefficient of Thermal Expansion                | "/"/°Cx10 <sup>-6</sup> | X-Axis – 10.0<br>Y-Axis – 13.0 |
| Breakdown Voltage (0.062) – 0.062"              | kV                      | A – 66                         |
| Electric Strength (0.062)                       | V/mil                   | A – 800                        |
| Arc Resistance (0.125) D-495                    | Sec                     | 130                            |
| Comparative Tracking Index (0.125) D3638        |                         | 300                            |
| $T_g$   | °C                      | 130                            |
| Permittivity (0.062") Condition – D 24/23       |                         | 4.8                            |
| Dissipation Factor (0.062") Condition – D 24/23 |                         | 0.032                          |
| Flammability Rating - U. L. 94                  | Class                   | V-0                            |

All testing per ASTM D-348 unless otherwise noted.

This data, while believed to be accurate and based on reliable analytical methods, is for informational purposes only. 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 check with Customer Service to determine if information is most current.

<sup>&</sup>lt;sup>1</sup> This temperature is a recommendation only. The maximum operating temperature is dependent upon the application and should be tested accordingly.