



Grade 1580

Flame-Resistant Laminate

- NEMA GPO-3
- Highly Flame-Resistant
- UL94 V0 Flame Rating
- Combines High Arc and Track Resistance
- UL® Recognized
- Outstanding Punchability
- Asbestos-Free

Grade 1580 is an easily fabricated laminate that exhibits excellent flame resistance.

Grade 1580 Flame-Resistant Laminate meets the UL94 V0 specification of Underwriters Laboratories. This material was originally designed to meet the television industry's safety assurance requirements.

Grade 1580 Laminate is a Class F material with a UL temperature index of 120° C Electrical and 140° C Mechanical.

Grade 1580 is available in thicknesses of $\frac{1}{32}$ through $\frac{3}{32}$ inches and the standard color is white.

Arc Stack Assembly And Flyback Transformer

Grade 1580 has exceptional flame resistance, arc resistance and a high temperature capability for applications such as flyback transformers and arc stack assemblies.

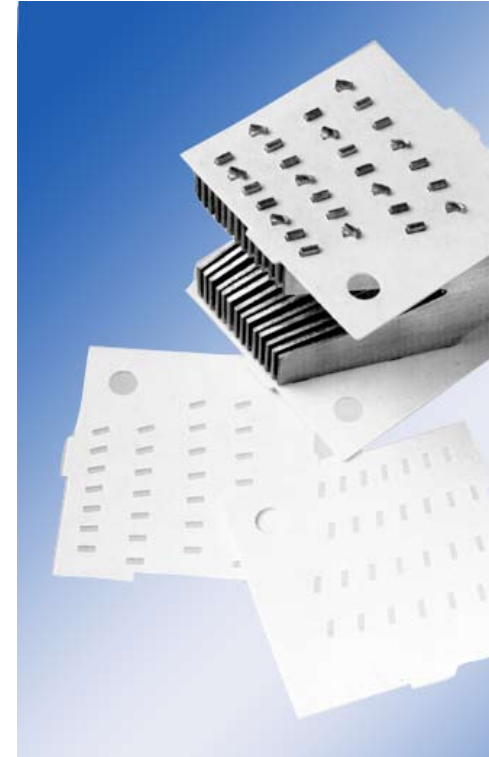




Grade 1580

| | UNIT | ASTM/UL Number | Grade 1580 |
|--|-------------------------------|----------------|------------|
| General Information | | | |
| Part Number | | | 1580 |
| Standard Color | | | White |
| Mechanical Properties | | | |
| NEMA Grade | | | GPO-3 |
| Tensile Strength | Psi | D638 | 8,400 |
| Tensile Modulus | Psi X 10 ⁶ | D638 | 1.8 |
| Flexural Strength | Psi | D790 | 24,600 |
| Flexural Strength – 130°C | Psi | D790 | 8,470 |
| Compressive Strength | Psi | D695 | 31,200 |
| Shear Strength | Psi | D732 | 12,000 |
| IZOD Impact Strength (notched) | ft.lb./in. | D256 | 8.9 |
| Water Absorption | % by wt. | D570 | 0.2 |
| Specific Gravity | – | D792 | 1.83 |
| Electrical Properties | | | |
| Electrical Strength – Perpendicular S/T in Air | Vpm | D149 | 425 |
| Electrical Strength – Perpendicular S/T in Oil | Vpm | D149 | 577 |
| Electrical Strength – Parallel S/S in Oil | kV | D149 | 47 |
| Arc Resistance | Sec. | D495 | 181 |
| IEC Track Resistance (CTI) | V. | UL746A | >600 |
| UL High Voltage Track Rate | In./Min. | UL746A | 0 |
| Permittivity, 60 Hz | – | D150 | 4.2 |
| Dissipation Factor, 60 Hz | – | D150 | .011 |
| Permittivity, MHz | – | D150 | 4 |
| Dissipation Factor, MHz | – | D150 | 0.01 |
| Insulation Resistance | Ohm x 10 ¹² | D257 | 823 |
| Flame Resistance Properties | | | |
| UL Subject 94 | – | UL94 | VO |
| UL Hot Wire Ignition | Sec. | UL746A | 300+ |
| UL High Amp Ignition | # Exposure | UL746A | 200+ |
| Oxygen Index | %O ₂ | D2863 | 39 |
| Ignition Time | Min. | – | 84 |
| Burn Time | Min | – | 23 |
| Thermal Properties | | | |
| Coefficient of Thermal Expansion | In/In/°C x 10 ⁻⁵ | D696 | 2 |
| Thermal Conductivity | BTU/HR/Ft ² /In/°F | C177 | 1.9 |
| UL Temperature Index | | | |
| – Electrical | °C | UL 746B | 120 |
| – Mechanical | °C | UL 746B | 140 |
| UL Recognition File Number | – | – | E81928 |

Typical average values for testing 0.063" thick material. Values will vary somewhat from thickness to thickness within a material grade.



Röchling Glastic Composites
4321 Glenridge Road
Cleveland, OH 44121 USA
Tel: 216-486-0100
Fax: 216-486-1091
www.glastic.com

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