

Technical Data Sheet

Glastic® UTS 1478

GFK-UP

Typical characteristics

- NEMA GPO-2
- High Strength
- Flame retardant

Typical industries

- Switchgear
- Electrical Industry
- Electrical Insulating Components
- Electronics

| | Test method | Unit | Guideline value |
|------------------------------------|-------------|----------------------------|-----------------|
| General properties | | | |
| Part Number | | | 1478 |
| NEMA Grade LI 1-1989 | NEMA LI-1 | | GPO-2/GPO-2P |
| Standard Color | | | Red |
| UL Temperature Index - Electrical | UL 746B | °C | 130 |
| UL Temperature Index - Mechanical | UL 746B | °C | 160 |
| UL Recognition File Number | | | E81928 |
| Mechanical properties | | | |
| Flexural Strength | ASTM D 790 | psi | 24,600 |
| Flexural Strength @130°C | ASTM D 790 | psi | 14,900 |
| Compressive Strength | ASTM D 695 | psi | 39,000 |
| Tensile Strength | ASTM D 638 | psi | 8,900 |
| IZOD Impact Strength (notched) | ASTM D 256 | ft. lb./in. | 10.7 |
| Shear Strength | ASTM D 732 | psi | 13,400 |
| Thermal properties | | | |
| Coefficient of Thermal Expansion | ASTM D 696 | (in./in.°C) x 10-5 | 2 |
| Thermal Conductivity | ASTM C 177 | BTUIn/HrFt ² °F | 1.8 |
| Flame resistance properties | | | |
| UL Subject 94 | UL 94 | | V0 |
| UL Hot Wire Ignition | UL 746A | sec. | 300+ |
| UL High Amp Ignition | UL 746A | | 200+ |

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| | Test method | Unit | Guideline value |
|--|-------------|----------------------|-----------------|
| Ignition Time | | sec. | 81 |
| Burn Time | | sec. | 48 |
| Oxygen Index | ASTM D 2863 | %O ₂ | 36 |
| Physical properties | | | |
| Water Absorption | ASTM D 570 | % by wt. | 0.6 |
| Specific Gravity | ASTM D 792 | | 1.8 |
| Dielectrical properties | | | |
| Electrical Strength - Perpendicular S/T in Air | ASTM D 149 | Vpm | 433 |
| Electrical Strength - Perpendicular S/T in Oil | ASTM D 149 | Vpm | 567 |
| Electrical Strength - Parallel S/S in Oil | ASTM D 149 | kV | 51 |
| Arc Resistance | ASTM D 495 | sec. | 130 |
| IEC Track Resistance (CTI) | UL 746A | V | 600+ |
| Permittivity, 60 Hz | ASTM D 150 | | 4.1 |
| Dissipation Factor, 60 Hz | ASTM D 150 | | 0.011 |
| Dissipation Factor, MHz | ASTM D 150 | | 0.10 |
| Permittivity, MHz | ASTM D 150 | | 3.9 |
| Insulation Resistance | ASTM D 257 | Ω x 10 ¹² | 270 |

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