

GLASS EPOXY

FR-4

MIL-I-24768/27 Type GEE-F

| PHYSICAL DATA | IMPERIAL | METRIC |
|--|------------|---------|
| Specific Gravity | 1.85 | - |
| Tensile Strength | 66,000 psi | 455 MPa |
| Compressive Strength | 38,000 psi | 262 MPa |
| Flexural Strength | 60,000 psi | 413 MPa |
| Hardness - M Scale | 115 | |
| Bond Strength | 2,300 psi | 15 MPa |
| Shear Strength | 21,500 psi | 148 MPa |
| Flammability Rating | 94V-0 | |
| Maximum Operating Temperature | 284°F | 140°C |
| Coefficient of Thermal Expansion °C (x 10-5) | 1.00 | |
| Water Absorption - 24 hours | 0.10 | |
| Izod Impact Strength @ 49°C -LW | 14.00 | |

PRODUCT DESCRIPTION

A laminate sheet crafted from flame retardant epoxy resin and woven fiberglass substrate, meeting NEMA FR4 and MIL-I-24768/27 specifications.

TYPICAL APPLICATIONS

With high mechanical strength and exceptional electrical insulation properties in dry or humid environments, this material is versatile for various electrical and mechanical applications due to its ease of fabrication.

| ELECTRICAL DATA | IMPERIAL | METRIC |
|--|----------|--------|
| Dissipation Factor - 106 cycles Condition A | 0.022 | |
| Dielectric Constant – 106 cycles Condition A | 4.80 | |
| Electric Strength V/MIL Condition A | 800 | |
| Dielectric Breakdown -A | | |
| Permittivity -A | | |

Atlas Fibre LLC provides this data as information only and does not imply any warranty for its use or application. Test data for an individual batch or product must be requested specifically and agreed to in writing and is available for a fee.

Need Additional Information?

Contact Atlas Fibre Support for support for services and materials.





North America's Leading Thermoset Composite Supplier & Fabricator

Atlas Fibre is the leading supplier of thermoset composite laminate in North America. We produce and supply over 4,000,000 pounds of thermoset composites per year and stock over \$12,000,000 of composite material.

Why Choose Atlas Fibre?



Large Inventory Available

An abundant inventory means material is available when you need it, helping you meet customer demand promptly, minimizing delays and enhancing customer satisfaction.



Fully Traced & Tested Material

Atlas Fibre enhances reliability by supplying test data for every batch of material we ship, and confirm our test lab process through independent third-party assessments on an annual basis.



No Cut-to-Size or Sanding Minimums

Atlas Fibre can cut and sand any thermoset composite or thermoplastic product to size, ensuring ensures each item is tailored to the exact specifications required by customers.



Automated Precision Fabrication

Specializing in High-Mix and High-Volume manufacturing for demanding production requirements, Atlas Fibre excels at delivering versatile and scalable fabrication solutions.

MATERIALS

Glass Epoxy G10, FR4, G11, FR5

Glass Polyester GPO-1, GPO-3

Glass Silicone

Phenolic C, CE, L, LE, G3

Engineering Thermoplastics PEI (Ultem), PPS, PEEK

Uni-directional Composite Spring Materials Atlas SpringLam

SERVICES

CNC Routing and Swiss
CNC Machining
Electrical and Thermal Insulation
Fabrication
Sanding
Batch and Sheet Testing
Thermoset Manufacturing

SHAPES

Sheets
Rods
Tubes
Precision Blanks
Prepreg
Composite Springs and Vibratory
Vacuum Pumps and Vanes



