

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	—

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.

PRODUCT DESCRIPTION

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

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.

AVAILABLE FORMS & STOCK SIZES

FR-4 is stocked in sheet (0.010"–4.000" thick, up to 48" × 96"), rod (Ø 0.062"–6.000") and tube (Ø 0.250"–12.000" ID) in lengths to 48", and is supplied as precision blanks or CNC routed and Swiss-turned machined components.

CERTIFIED & TRACEABLE

Conforms to NEMA FR-4 specifications. Batch test data ships with every order, verified annually by independent third-party lab assessment. No cut-to-size or sanding minimums.



TYPICAL APPLICATIONS

- › Printed circuit board substrates
- › Arc shields and barrier strips
- › Motor and generator insulation
- › Test fixtures and probe plates
- › Flame-retardant electrical enclosures

REQUEST A QUOTE

Stock Material. Precision Parts.

FR-4 is available from stock, cut to size or precision machined to your specifications. Request a quote or call 847-674-1234 to connect with an Atlas Fibre representative.

atlasfibre.com/
materials/fr-4

