

FR-4 Epoxy Fiberglass Laminated Sheet

- FR-4 (or FR4) is a grade designation assigned to glass-reinforced epoxy laminate sheets, tubes, rods and printed circuit boards (PCB). FR4 is a composite material composed of woven fiberglass cloth with an epoxy resin binder that is flame resistant (self-extinguishing).
- "FR" stands for flame retardant, and denotes that safety of flammability of FR4 is in compliance with the standard UL94V-0. FR-4 is created from the constituent materials (epoxy resin, woven glass fabric reinforcement, brominated flame retardant, etc.) by NEMA in 1968.
- FR-4 Epoxy Fiberglass Sheet is a popular and versatile high-pressure thermoset plastic laminate grade with good strength to weight ratios. With near zero water absorption, FR-4 is most commonly used as an electrical insulator possessing considerable mechanical strength. The material is known to retain its high mechanical values and electrical insulating qualities in both dry and humid conditions. These attributes, along with good fabrication characteristics, lend utility to this grade for a wide variety of electrical and mechanical applications

Specifications

Item	Color	Quality Grade	Thickness/deviation	Dimensions	Density
FR-4	Light green	AB	0.3 mm/0.05mm	1020*1220mm	2.2g/cm ³
			0.4 mm/0.05mm		
			0.5 mm/0.05mm		
			0.6 mm/0.05mm		
			0.8 mm/0.05mm		
			1.0 mm/0.05mm		
			1.2 mm/0.06mm		
			1.5 mm/0.07mm		
			2.0 mm/0.2mm		
			2.5 mm/0.2mm		
			3-30 mm/0.2-1mm		
	Black (anti-static)		3-30mm/0.2-1mm		

Key Features

- Flame resistance
- High dielectric strength
- Moisture resistance
- Heat resistant
- Temperature resistance: 180-200°C
- Under the normal temperature 150°C, it still has high mechanical strength.

Applications

- Used in mechanical, electrical and electronic high insulation structure parts.
- Used in high-performance electrical insulation requirements.
- Chemical machine parts.
- General machines parts and gear, generators, Pads, base, baffle.
- Generator, transformer, fixture, inverter, motor
- Electric insulation component.

Pictures

