



FR4 Fiberglass Laminates

This product has superior physical properties and outstanding performance in both medium-temperature and high-temperature environments, meets UL 94 V0 standard. It features exceptional flexural, impact and bond strength at temperatures up to 130°C.

Standard

- IEC 60893-3:2003
- GB/T 1303.4-2009

Flame Resistance

UL94-V0

Heat Resistance

Class B

Regular Size

- 1020*1220/1020*1020mm
- 1220*2040/1020*2040mm
- 1220*2440mm

Raw Material

Adhesive / Epoxy resin
Reinforcing material / Electronic grade fiber glass cloth









Certificate Available

UL ☐ RoHS ☒ REACH ☒ MSDS ☒ CEMT ☒
Factory Inspection Report ☒

Characteristics

- ✓ High-pressure laminate
- ✓ Extremely high mechanical & dielectric strength and low flammability
- ✓ Special epoxy (EP) resin matrix reinforced with an e-glass roving fabric

Industries

-  Generator and Motor
-  Electrical Industry
-  Healthcare
-  HVDC Transmission
-  Electrical Insulating Component
-  Hydrogen Energy
-  New Energy Industry
-  Battery Test

Technical Data Sheet

Product name	NEMA GRADE FR-4 / EPGC202	
SECTION I - MISC CHARACTERISTICS		
Density	g/cm³	1.95-2.10
Flammability	UL94	V0
Water absorption (5mm)	%	≤0.15
Chemical family	Resin	Epoxy
Reinforcement type	Glass fabrics	7628
Thermal characteristics	°C	≥130
Colour	Green (Natural), Yellow	
SECTION II- MECHANICAL CHARACTERISTICS		
Bending strength	MPa	≥400
Tensile strength	MPa	≥300
Compressive strength ⊥	MPa	≥350
Modulus of elasticity	MPa	≥24000
Impact strength //	kJ/m²	≥33
SECTION III- ELECTRICAL CHARACTERISTICS		
Electrical strength ⊥	kV/mm, thickness≤3mm	≥10.2
Breakdown voltage //	kV	≥35
Proof tracking index	PTI	≥200
SECTION IV-HAZARDOUS INGREDIENTS		
Hazardous components	No OSHA hazardous ingredients	
SECTION V - REACTIVITY DATA		
Chemical stability	Stable under normal conditions	
Conditions to avoid	Avoid longtime heating above 130°C	
Incompatible materials	Exposure to strong acids or bases will cause damage	
Hazardous polymerizations	Will not occur	
Storage and use effects	Conventional performance remains stable within 1 year. Long-term exposure to sunlight and high humidity will cause discoloration and performance degradation.	
SECTION VI- PRECAUTION		
Over exposure effects	Dust from machining products can irritate the eyes, nose, throat and lungs. Prolonged inhalation of dust can cause lung disease.	

Note: All information, recommendations and suggestions appearing herein concerning this product are average values ascertained at room temperature by regular statistical analysis. It is provided purely for information and shall not be regarded as binding unless expressly agreed otherwise.

DIMENSIONAL TOLERANCE		Tolerance of length & width is less than 5 mm	
Thickness (mm)	Tolerance (mm)	Thickness (mm)	Tolerance (mm)
0.5-0.8	±0.05	6.0-8.0	±0.50
1.0-1.8	±0.15	10.0-15.0	±0.75
2.0-2.8	±0.20	16.0-20.0	±1.00
3.0-5.0	±0.30	21.0-50.0	±2.00