G11 Fiberglass Laminates

This product is specially-formulated to meet the exacting standards of electronic and power generation applications and provides excellent physical, mechanical and electrical properties at both room and elevated temperatures. It can withstand temperature of 155°C for a long time.

Standard

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

Flame Resistance

HB

Heat Resistance

Class F

Regular Size

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

Raw Material

Adhesive / High temperature resistant epoxy resin
Reinforcing material / Electronic grade fiber glass cloth

Certificate Available

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

Characteristics

- Good mechanical and electrical properties at both room temperature and elevated temperatures
- Epoxy (EP) resin matrix reinforced with an e-glass fine fabrics

Industries

- Generator and Motor
- Dry Transformer
- Electrical Industry
- Electrical Insulating Component

Technical Data Sheet

Product name	NEMA GRADE G11 / EPGC 203	
SECTION I - MISC CHARACTERISTICS		
Density	g/cm^3	1.95-2.05
Flammability	-	HB
Water absorption (5mm)	%	≤0.12
Chemical family	Resin	Epoxy
Reinforcement type	Glass fabrics	7628
Thermal characteristics	℃	≥155
Colour	Green (Natural), Yellow	
SECTION II- MECHANICAL CHARACTERISTICS		
Bending strength	MPa	≥450
Tensile strength	MPa	≥350
Compressive strength ⊥	MPa	≥450
Modulus of elasticity	MPa	≥24000
Impact strength //	kJ/m^2	≥33
SECTION III- ELECTRICAL CHARACTERISTICS		
Electrical strength ⊥	kV/mm, thickness≤3mm	≥15
Breakdown voltage //	kV	≥45
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 155°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- PRECAUSTION		
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