ECOCORE

ECOCORE NEW MATERIAL CO.,LTD

OEM AND ODM

ONE-STOP SERVICE FOR R&D, PRODUCTION, SALES AND AFTER-SALES

DIRECT MANUFACTURER

NO MIDDLEMAN EARNS THE PRICE DIFFERENCE.

CUSTOMIZED SERVICE

PROVIDE CUSTOMIZED SERVICE ACCORDING TO THE DRAWING YOU PROVIDED.

Fiberglass Laminates

Electronic & Electrical Insulation

Product Manual >

01 Company Introduction

Ecocore New Material Co., Ltd. is founded in 2010, which is a modernized company integrating production, R&D and trading. Company is located in Innovation Park, Zhuzhou Economic Development Zone, Hunan Province, China. There are many factories here that produce a variety of products. Company mainly products are divided into three series: 1.Epoxy resin sheet (FR4/ G10/ G11 /EPGC310, EPGC204, EPGC208, 3240) 2.Infrared heating panel 3.CNC machining

The company has 10+ years of production and sales experience, sophisticated and advanced equipment, excellent talents, advanced production technology, reliable quality, and timely after-sales response. The company adheres to the goal of providing customers with the best products and services, and providing every customer with the most comfortable purchasing experience. Our company has rich experience in production operation, integration of industry related products, and capital operation.

OUR VISION

Since the establishment of Ecocore New Material., We have abided by the philosophy of 'WORK IS WORSHIP'. We have developed as a highly qualified management and technical team. In addition there is a constant endeavour in the pursuit of innovation of technology and product.

OUR MISSION

Our mission is to be the leader in this line of business by providing maximum customer satisfaction through our commitment to quality, delivery and service. Our focus is on continuous Improvement, method refinement and complete customer satisfaction.

OUR VALUES

Customer Focus & Innovation and Flexibility & Teamwork and Collaboration & Commitmentand confidence & Continuous Improvement

Our company had established a long-term cooperation with several domestic processional academy and composite raw materials manufacturers. Advanced automatic production line, excellent technology and experienced engineers assure we can provide you the products comply with the international standards and different requirements. Professional working team, high efficiency reaction and rich experience assure that you will be satisfied with the products and service from us.

We have won over 300 customers from different countries. And more and more customers are joining us. Ecocore New Material is your reliable partner.

2
Prepreg Product Line

4
Multi-opening Hot Press

12
CNC Routing

2
CNC Milling

2
Grinding Machine

1
Slitting Machine

1
Heating plate screen printing machine

1
Large water cutting machine

02
SUSTAINABILITY AT ECOCORE

The continuous improvement of economy and environment in our community, the promotion life quality of our staff and their families are the sustained aims of Ecocore.

In order to achieve these aims, Ecocore has made great efforts on the balance among economic development and environment protection, including how to design and manufacture products;how to refine product and service;how to cooperate with local suppliers and to evaluate risks and opportunities;how to fulfill its responsibility and so on.

03 Our purpose

Decentralized setup

Full division accountability

Performance management

Boundary management

Word-of-mouth

SNS & share

Values

People

Leadership

Risk and contingency

Processes regulation

Internal control

+ Our culture

Customer First

- Partner with our customers
- Listen firstly
- Always smile and be enthusiastic

Embrace Changes

- More choices, more laughs
- Believe there is always a better way
- Learn from failures as well as successes

Devotion

- Grow faster with more shares
- Proud of your team
- Speak up and ask for help

Care with Respect

- Take care of our people as well as their family
- Respect and value differences
- Direct speak and act with integrity

04 Flexible & high efficient manufacture

Make a quick response to the customers' special requirements on product color, size, delivery time, transportation, special technical property requirements, etc, provide customization service and shorten the delivery time.

Organize production in accordance with GB and international (IEC) standards, implement full-process control concept from warehousing raw material control to finished products inspection, focus on customers' experiences and needs, and provide products and service that exceed customers' expectation.

05 Testing

Mechanical property testing

- Tensile strength
- Impact strength
- Flexural strength
- Shear strength
- Elongation at break
- Hardness
- Bonding strength

Electrical property testing

- Breakdown voltage
- Electrical strength
- Proof tracking index
- Electrical resistance
- Dielectric constant

Temperature resistance testing

- Temperature index

06 Service

Warehouse

+ In the warehouse, all the finished products should be protected from the pollution of water droplets, dust and sand. All the products are covered with plastic film during storage.

Transport

+ The insulation materials are well packed with plastic film, hard cardboard and standard export fumigation-free pallets or wooden cases. The edges are protected with anti-collision strips to avoid damage during loading and unloading process.

Shipping

+ The product will be delivered by truck or by sea once it has passed the tests. We take care of all the shipping documents needed depending on destinations and delivery terms. We also provide customized packaging for special applications or conditions.

Quality

+ We have customized production according to the customers' demand, and we are able to achieve rapid delivery. All these abilities are originated from our decades' practice of TPS and continuous improvement of production equipment. We need to meet or exceed our customers' requirements, and our products can reach the requirements of IEC and GB.

Customer First

+ We cordially welcome our customers to participate in our joint-effort of R&D. We are not only concerned about the products, but also the application and efficiency of the products. We adopt reasonable prices and follow the strict quality standards, committing ourselves to providing cost effective and reliable products to our customers.

What We Do

We integrate production, research and development and deep processing. Our business supplies different heat resistance classes of epoxy fiberglass laminates, including 3240,G10, FR4, G11, EPGC308, etc.
In addition, we also manufacture customized special types and quality products.

Portfolio of Products

Product	IEC	NEMA	Heat Resistance
3240 Fiberglass Laminates	-	-	Class B
G10 Fiberglass Laminates	EPGC201	G10	Class B
FR4 Fiberglass Laminates	EPGC 202	FR4	Class B
ESD Fiberglass Laminates	-	-	Class B
Halogen-Free FR4 Fiberglass Laminates	-	-	Class B
G11 Fiberglass Laminates	EPGC 203	G11	Class F
FR5 Fiberglass Laminates	EPGC 204	FR5	Class F
EPGC308 Fiberglass Laminates	EPGC308	-	Class H
EPGM203	-	-	Class F
Modified Diphenyl Ether Fiberglass Laminates	DPOGC301	-	Class H
Bismaleimide Fiberglass Laminates	BMI GC301/302	-	Class H
Silicone Fiberglass Laminates	SIGC202	G7	Class C
Modified Polyimide Fiberglass Laminates	PIGC301	-	Class C
Semiconductor Fiberglass Laminates	-	-	Class B / F
Magnetic Fiberglass Laminates	-	-	Class B / F / H
UPGM	UPGM 203-205	-	Class F

Content

3240 Fiberglass Laminates

This product is made of electrical alkali-free glass cloth impregnated with epoxy resin by hot pressing.

Standard

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

Flame Resistance

HB

Heat Resistance

Class B

Regular Size

- 1020*2020mm

Raw Material

Adhesive / Epoxy resin
Reinforcing material / Alkali free glass fiber cloth

Certificate Available

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

Characteristics

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

Industries

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

Technical Data Sheet

SECTION I - MISC CHARACTERISTICS		
Density	g/cm^3	2.00-2.10
Flammability	-	HB
Water absorption (5mm)	%	≤0.07
Chemical family	Resin	Epoxy
Reinforcement type	Glass fabrics	Alkali-free
Thermal characteristics	℃	≥130
Colour	Yellow	
SECTION II- MECHANICAL CHARACTERISTICS		
Bending strength	MPa	≥350
Tensile strength	MPa	≥300
Compressive strength ⊥	MPa	≥300
Modulus of elasticity	MPa	≥24000
Impact strength //	kJ/m^2	≥33
SECTION III- ELECTRICAL CHARACTERISTICS		
Electrical strength ⊥	kV/mm, thickness≤3mm	≥10.2
Breakdown voltage //	kV	≥35
Proof tracking index	PTI	≥150
SECTION IV-HAZARDOUS INGREDIENTS		
Hazardous components	No OSHA hazardous ingredients	
SECTION V - REACTIVITY DATA		
Chemical stability	Stable under normal conditions	
Conditions to avoid	Avoid in use 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- 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	±0.12	5.0	±0.52
1.0	±0.18	8.0	±0.72
2.0	±0.28	10.0	±0.82
3.0	±0.37	20.0	±1.30

G10 Fiberglass Laminates

This product meets IEC standard and is used for applications requiring structural support and insulation properties.

Standard

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

Flame Resistance

HB

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

ULㅁ RoHS ☑ REACH ㅁ 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
- Diagnosis Testing Industry
- Battery Test
- Solar Panel Industry

Technical Data Sheet

Product name	NEMA GRADE G10 / EPGC 201	
SECTION I - MISC CHARACTERISTICS		
Density	g/cm^3	1.95-2.10
Flammability	-	HB
Water absorption (5mm)	%	≤0.15
Chemical family	Resin	Epoxy
Reinforcement type	Glass fabrics	7628
Thermal characteristics	℃	130±5
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/m^2	≥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 125°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.	

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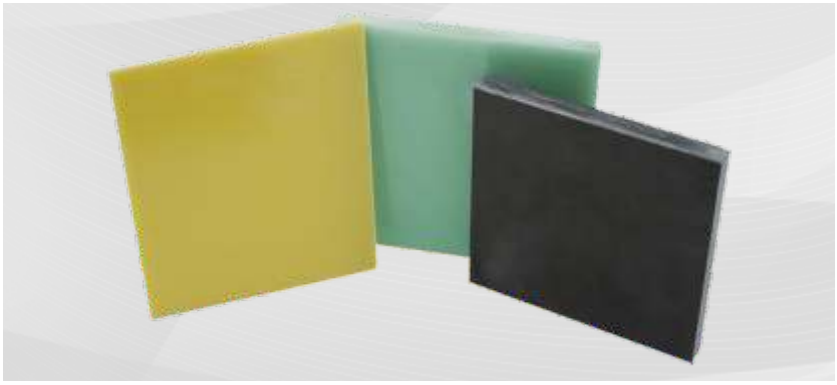
DIMENSIONAL TOLERANCE Tolerance of length & width is less than 5 mm

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



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

ULㅁ 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/cm^3	1.95-2.10
Flammability	UL94	V0
Water absorption (5mm)	%	≤0.15
Chemical family	Resin	Epoxy
Reinforcement type	Glass fabrics	7628
Thermal characteristics	℃	≥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/m^2	≥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- PRECAUSTION		
Over exposure effects	Dust from machining products can irritate the eyes, nose, throat and lungs. Prolonged inhalation of dust can cause lung disease.	

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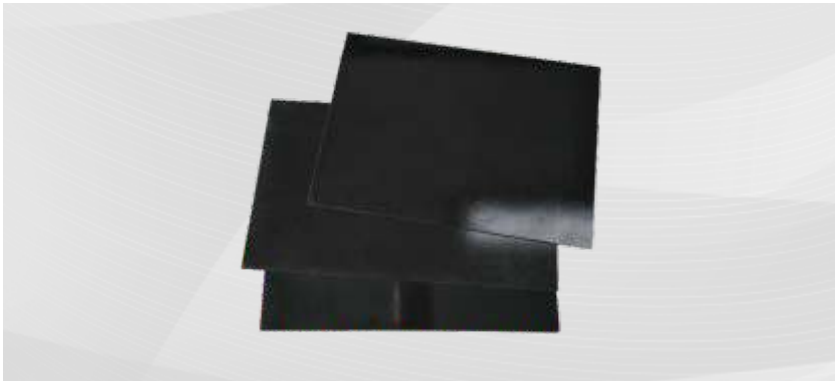
DIMENSIONAL TOLERANCE — Tolerance of length & width is less than 5 mm

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



ESD Fiberglass Laminates

This product is made of glass fiber as the main material, adding resin, antistatic agent and other ingredients. Among them, it is an inorganic non-metallic material processed through many procedures.

Standard

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

Flame Resistance

UL94-V0

Heat Resistance

Class B

Anti-static Index

$10^{7}\Omega$-$10^{9}\Omega$

Regular Size

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

Raw Material

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

Certificate Available

ULㅁ RoHS ☑ REACH ㅁ MSDS ☑ CEMT ☑
Factory Inspection Report ☑

Characteristics

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

Industries

- Diagnosis Test Industry
- Semi-conductor Industry
- PCB Manufacturing
- Electrical Industry
- Electrical Insulating Component
- Battery Test

Technical Data Sheet

Product name	ESD / ESD Fiberglass Laminates / Electrostatic Dissipative Laminates	
SECTION I - MISC CHARACTERISTICS		
Density	g/cm^3	1.95-2.10
Flammability	UL94	V0
Water absorption (5mm)	%	≤ 0.15
Chemical family	Resin	Epoxy
Reinforcement type	Glass fabrics	7628
Thermal characteristics	℃	≥130
Colour	Balck	
SECTION II- MECHANICAL CHARACTERISTICS		
Bending strength	MPa	≥400
Tensile strength	MPa	≥300
Compressive strength ⊥	MPa	≥400
Impact strength //	kJ/m^2	≥33
SECTION III- ELECTRICAL CHARACTERISTICS		
Electrical strength ⊥	kV/mm, thickness≤3mm	≥10.2
Breakdown voltage //	kV	≥35
Insulatin resistance after water immersion	Ω	≥1xl0^7
Surface resistance	Ω	1X10^7~10^9
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 above130°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 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.	

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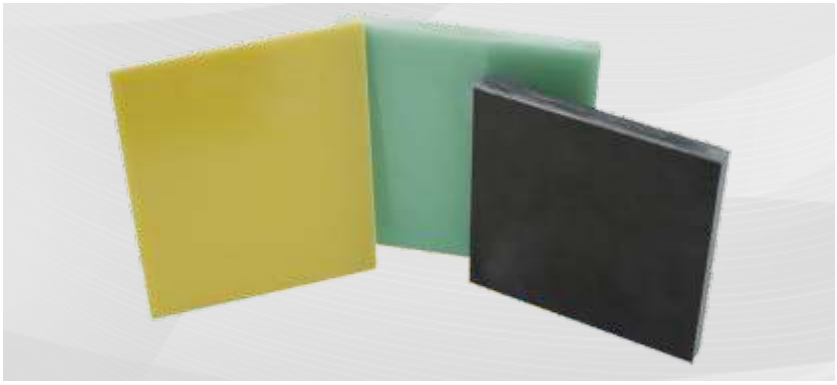
DIMENSIONAL TOLERANCE	Tolerance of length & width is less than 5 mm		
Thickness (mm)	Tolerance (mm)	Thickness (mm)	Tolerance (mm)
0.5-0.8	±0.05	6.0-8.0	±0.50
1.0-1.8	±0.15	10.0-15.0	±0.75
2.0-2.8	±0.20	16.0-20.0	±1.00
3.0-5.0	±0.30	21.0-50.0	±2.00



Halogen-Free FR4 Fiberglass Laminates

This product is an environmentally friendly insulating material, which is made of glass fiber cloth as reinforcement material and epoxy resin as matrix material. Compared with traditional FR4, halogen-free FR4 insulation sheet doesn't contain halogen elements, such as chlorine, bromine, thereby reducing the harm to the environment and human body.

Standard

- IEC 60893-3:2003
- GB/Z 21213-2007

Flame Resistance

UL94-V0

Heat Resistance

Class B

Regular Size

- 1220*1020mm
- 1220*2040mm

Raw Material

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

Certificate Available

UL☐ RoHS ☑ HALOGEN ☑ 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
- Halogen-free resin

Industries

- Diagnosis Test Industry
- Semi-conductor Industry
- PCB Manufacturing
- 3C Industry
- Railway Industry
- Automobile Industry

Technical Data Sheet

Product name		Halogen-free FR4 / Halogen-free laminates	
SECTION I - MISC CHARACTERISTICS			
Density		g/cm^3	1.90-2.00
Flammability		UL94	V0
Water absorption (5mm)		%	≤0.15
Chemical family		Resin	Epoxy
Reinforcement type		Glass fabrics	7628
Thermal characteristics		℃	≥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/m^2	≥33
SECTION III - ELECTRICAL CHARACTERISTICS			
Electrical strength ⊥		kV/mm, thickness≤3mm	≥10.2
Breakdown voltage //		kV	≥35
Surface resistivity	After getting wet	MΩ	$\geq 10^4$
Volume resistivity	After getting wet	MΩ · cm	$\geq 10^6$
Proof tracking index		PTI	≥200
SECTION IV - HOLOGEN CONTENT			
Halogen Content	Br	ppm	<900
	Cl		<900
	Br+Cl		<1500
SECTION V - HAZARDOUS INGREDIENTS			
Hazardous components		No OSHA hazardous ingredients	
SECTION VI - 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 VII - PRECAUSTION			
Over exposure effects		Dust from machining products can irritate the eyes, nose, throat and lungs. Prolonged inhalation of dust can cause lung disease.	

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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

ULㅁ RoHS ☑ REACH ㅁ MSDS ☑ CEMT ㅁ
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.	

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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

FR5 Fiberglass Laminates

This product is similar to G10/FR4 but has a higher operating temperature and superior mechanical properties at elevated temperatures. The main difference between NEMA Grades G11 and FR5 is that FR5 is flame retardant while G11 is not.

Standard

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

Flame Resistance

UL94-V0

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

- High-pressure laminates
- 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

Technical Data Sheet

Product name	NEMA GRADE FR5 / EPGC 204	
SECTION I - MISC CHARACTERISTICS		
Density	g/cm^3	1.95-2.10
Flammability	UL94	V0
Water absorption (5mm)	%	≤0.15
Chemical family	Resin	Epoxy
Reinforcement type	Glass fabrics	7628
Thermal characteristics	℃	≥155
Colour	Green, 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

EPGC308 Fiberglass Laminates

This product is made of chemically treated electrical alkali-free glass fiber cloth as the base material and high Tg epoxy resin as the adhesive by hot pressing.

Standard

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

Flame Resistance

HB

Heat Resistance

Class H

Regular Size

- 1020*2020mm

Raw Material

Adhesive / 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
- Electrical Industry
- Electrical Insulating Component
- Oil and Gas

Technical Data Sheet

Product name	EPGC308	
SECTION I - MISC CHARACTERISTICS		
Density	g/cm^3	1.90-2.00
Flammability	-	HB
Water absorption (5mm)	%	≤0.08
Chemical family	Resin	Epoxy
Reinforcement type	Glass fabrics	7628
Thermal characteristics	℃	180
Colour	Yellow	
SECTION II- MECHANICAL CHARACTERISTICS		
Bending strength	MPa	≥500
Tensile strength	MPa	≥375
Compressive strength ⊥	MPa	≥450
Impact strength //	kJ/m^2	≥50
SECTION III- ELECTRICAL CHARACTERISTICS		
Electrical strength ⊥	kV/mm, thickness≤3mm	≥15
Breakdown voltage //	kV	≥45
Insulatin resistance after water immersion	MΩ	5.0xl0^4
Proof tracking index	PTI	≥400
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 180°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	±0.12	5.0	±0.52
1.0	±0.18	8.0	±0.72
2.0	±0.28	10.0	±0.82
3.0	±0.37	20.0	±1.30

EPGM203

This product is glass fiber mat bonded with high temperature epoxy resin. It has the ability to maintain excellent mechanical and electrical properties at high temperature. It can be widely used in motors, generators, can also be used to produce the machining parts etc.

Standard

- IEC 60893-3-2:2011
- GB/T 1303.4-2009

Flame Resistance

HB

Heat Resistance

Class F

Regular Size

- 1020*1220mm
- 1020*2040mm

Raw Material

Adhesive / Epoxy resin
Reinforcing material / E-glass mat

Certificate Available

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

Characteristics

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

Industries

- Generator and Motor
- Renewable Energy
- Electrical Industry
- Wind Energy
- Electrical Insulating Component
- Hydrogen Energy

Technical Data Sheet

Product name	EPGM 203	
SECTION I - MISC CHARACTERISTICS		
Density	g/cm^3	1.90-2.05
Flammability	-	HB
Water absorption (5mm)	%	≤0.13
Chemical family	Resin	Epoxy
Reinforcement type	Glass fabrics	E-glass mat
Thermal characteristics	℃	≥155
Colour	Yellow	
SECTION II- MECHANICAL CHARACTERISTICS		
Bending strength ⊥ (Room temperature)	MPa	≥320
Bending strength ⊥ (150℃)	MPa	≥160
Charpy impact strength //	kJ/m^2	≥50
SECTION III- ELECTRICAL CHARACTERISTICS		
Electrical strength at 90 ℃ in oil ⊥	kV/mm, thickness≤3mm	≥9
Breakdown voltage //	kV, thickness>3mm	≥35
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)
2.0	±0.35	12.0	±0.90
5.0	±0.55	16.0	±1.10
8.0	±0.70	20.0	±1.30
10.0	±0.80	30.0	±1.45

Modified Dipheny Ether Fiberglass Laminates

This product is made of alkali-free glass fiber cloth for electrical use, impregnated with phenol-modified diphenyl ether resin by baking and hot pressing.It has high mechanical and dielectric properties, good radiation resistance, and is suitable for insulating structural parts in motors and electrical equipment.

Standard

- GB/Z 21215-2007

Flame Resistance

HB

Heat Resistance

Class H

Regular Size

- 1020*2020mm

Raw Material

Adhesive / Modified diphenyl ether resin
Reinforcing material / Alkali free glass fiber cloth

Certificate Available

ULㅁ RoHS ☑ REACH ㅁ MSDS ☑ CEMT ☑
Factory Inspection Report ☑

Characteristics

- Good mechanical and electrical properties at both room temperature and elevated temperatures
- Diphenyl ether resin matrix reinforced with alkali-free glass fabric

Industries

- Dry Transformers
- Electrical Industry
- Electrical Insulating Component
- Generator

Technical Data Sheet

Product name		Modified Dipheny Ether Fiberglass Laminates	
SECTION I - MISC CHARACTERISTICS			
Density		g/cm^3	1.85-2.05
Flammability		-	HB
Water absorption		%	≤0.5
Reinforcement type		-	Glass fabrics
Thermal characteristics		°C	180
Colour		-	Brown
SECTION II- MECHANICAL CHARACTERISTICS			
Bending strength ⊥ (Room temperature)		MPa	≥400
Bending strength ⊥ (180°C ± 2°C)		MPa	≥300
Tensile strength		MPa	≥320
Izod impact strength		kJ/m^2	≥60
Charpy impact strength		kJ/m^2	≥40
Bond strength		N	≥4900
SECTION III- ELECTRICAL CHARACTERISTICS			
Breakdown voltage at 90°C transformer oil //		kV	≥35
Electric strength at 90 °C±2°C oil ⊥ (Thicknes: 3.0mm)		MV/m,thickness≤3mm	≥16
Relative permittivity (1mhz)		-	≤5.5
Dissipation factor (1 mhz)		-	≤0.05
Surface resistivity	Under normal conditions	Ω	≥1.0×10^6
	After immersion		≥1.0×10^4
	180 °C		≥1.0×10^4
Volume resistivity	Under normal conditions	M. Ωm	≥1.0×10^5
	After immersion		≥1.0×10^3
	180 °C		≥1.0×10^3
Insulation resistance	Under normal conditions	MΩ	≥1.0×10^4
	After immersion		≥1.0×10^2
SECTION IV-HAZARDOUS INGREDIENTS			
Hazardous components		No OSHA hazardous ingredients	
SECTION V - REACTIVITY DATA			
Hazardous components		Stable under normal conditions	
Conditions to avoid		Avoid longtime heating above 180°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 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	±0.12	5.0	±0.52
1.0	±0.18	8.0	±0.72
2.0	±0.28	10.0	±0.82
3.0	±0.37	20.0	±1.30

Bismaleimide Fiberglass Laminates

This product is made of electrical alkali-free glass fiber cloth impregnated with bismaleimide resin by baking and hot pressing.

Standard

- GB/T1303.10-2009

Flame Resistance

HB

Heat resistance

Class H

Regular Size

1020*2020mm

Raw Material

Adhesive / Bismaleimide resin
Reinforcing material / Alkali free glass fiber cloth

Certificate Available

ULㅁ RoHS ㅁ REACH ㅁ MSDS ☑ CEMT ㅁ
Factory Inspection Report ☑

Characteristics

- Good mechanical and electrical properties at both room temperature and elevated temperatures
- Bismaleimide resin matrix reinforced with alkali-free glass fabric

Industries

- Dry Transformer
- Electrical Industry
- Electrical Insulating Component
- Generator
- Semi-conductor Industry

Technical Data Sheet

Product name		Bismaleimide Fiberglass Laminates	
SECTION I - MISC CHARACTERISTICS			
Density		g/cm^3	1.85-2.05
Flammability		-	HB
Water absorption		%	≤0.5
Reinforcement type		-	Glass fabrics
Thermal characteristics		°C	180
Colour		-	Brown
SECTION II- MECHANICAL CHARACTERISTICS			
Bending strength ⊥ (Room temperature)		MPa	≥400
Bending strength ⊥ (180°C ± 2°C)		MPa	≥300
Izod impact strength		kJ/m^2	≥60
Charpy impact strength		kJ/m^2	≥40
Bond strength		N	≥4900
Tensile strength		MPa	≥300
SECTION III- ELECTRICAL CHARACTERISTICS			
Breakdown voltage at 90°C oil (parallel) //		kV	≥35
Electric strength at 90 °C±2°C oil ⊥		MV/m,thickness≤3mm	≥10
Relative permittivity (1mhz)		-	≤5.5
Dissipation factor (1 mhz)		-	≤0.05
Surface resistivity	Under normal conditions	Ω	$≥1.0×10^6$
	After immersion		$≥1.0×10^4$
	180 °C		$≥1.0×10^4$
Volume resistivity	Under normal conditions	M. Ωm	$≥1.0×10^5$
	After immersion		$≥1.0×10^3$
	180 °C		$≥1.0×10^3$
Insulation resistance	Under normal conditions	MΩ	$≥1.0×10^4$
	After immersion		$≥1.0×10^2$
Tracking resistance		PTI	≥275
SECTION IV-HAZARDOUS INGREDIENTS			
Hazardous components		No OSHA hazardous ingredients	
SECTION V - REACTIVITY DATA			
Hazardous components		Stable under normal conditions	
Conditions to avoid		Avoid longtime heating above 180°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 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	±0.12	5.0	±0.52
1.0	±0.18	8.0	±0.72
2.0	±0.28	10.0	±0.82
3.0	±0.37	20.0	±1.30

Silicone Fiberglass Laminates

This product is made of KH550 treated alkali-free fiberglass cloth impregnated with methyl, phenyl and siloxane resins by hot pressing.

Standard

- IEC 60893-3-6:2003
- GB/T 1303.8-2009

Flame Resistance

UL94-V0

Heat Resistance

Class C

Regular Size

- 1020*2020mm

Raw Material

Adhesive / methyl, phenyl and siloxane resins
Reinforcing material / Alkali free glass fiber cloth

Certificate Available

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

Characteristics

- Good electrical properties under humid conditions
- Excellent heat and arc resistance
- Self-extinguishing
- Good dielectric loss properties under dry conditions
- Good electrical properties under humid conditions

Industries

- Heating Insulation
- Appliance Insulation
- Electrical Industry

Technical Data Sheet

Product name		NEMA GRADE G7 / SIGC202 / 3250	
SECTION I - MISC CHARACTERISTICS			
Density		g/cm^3	1.85-2.05
Flammability		UL94	V0
Water absorption (5mm)		%	≤0.5
Reinforcement type		Glass fabrics	Alkali free glass fiber cloth
Thermal characteristics		℃	200
Colour		White	
SECTION II- MECHANICAL CHARACTERISTICS			
Bending strength	Normal	MPa	≥120
	≥180°C±2°C		≥100
Impact strength //		kJ/m^2	≥25
SECTION III- ELECTRICAL CHARACTERISTICS			
Breakdown voltage at 90°C oil //		kV	≥25
Dielectric constant (1MHz)		-	≤6
Dielectric loss factor (1MHz)		-	≤0.07
Insulation resistance after immersion in water		MΩ	1.0x10^3
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 200°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	±0.12	5.0	±0.52
1.0	±0.18	8.0	±0.72
2.0	±0.28	10.0	±0.82
3.0	±0.37	20.0	±1.30

Modified Polyimide Fiberglass Laminates

This product is made of KH560 treated alkali-free fiberglass cloth impregnated with special polyimide thermosetting resin by hot pressing.

Standard

- IEC 60893-3-7:2003
- GB/T 1303.9-2009

Flame Resistance

HB40

Heat Resistance

Class C

Regular Size

- 1020*2020mm

Raw Material

Adhesive / Special polyimidel thermo setting resin
Reinforcing material / Alkali free glass fiber cloth

Certificate Available

ULㅁ RoHS ㅁ REACH ㅁ MSDS ☑ CEMT ☑
Factory Inspection Report ☑

Characteristics

- Heat resistant
- High mechanical strength
- High impact resistance
- High stiffness
- Good dimensional stability

Industries

- Semi-conductor Industry
- Electronics
- Aerospace
- Automobile Industry

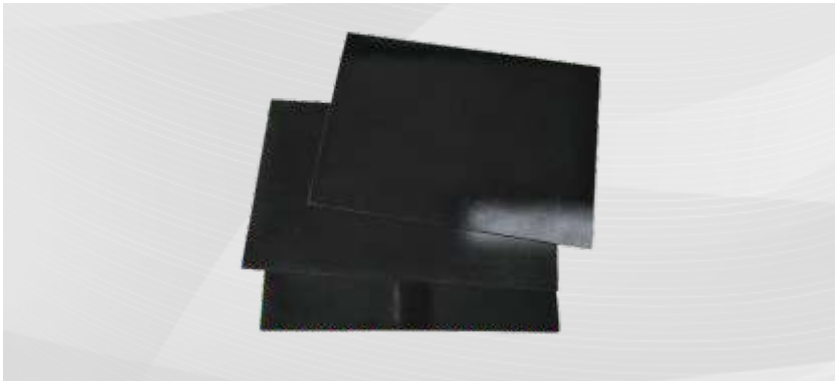
Technical Data Sheet

Product name		PIGC301 / Modified polyimide fiberglass laminates	
SECTION I - MISC CHARACTERISTICS			
Density		g/cm^3	1.90-2.00
Flammability		-	HB40
Water absorption (5mm)		%	≤0.5
Chemical family		Resin	Modified polyimide resin
Reinforcement type		Glass fabrics	Alkali free glass fiber cloth
Thermal characteristics		℃	200
Colour		-	Brown
SECTION II- MECHANICAL CHARACTERISTICS			
Bending strength	Normal	MPa	≥400
	200±5°C		≥300
Impact strength (charpy)		kJ/m^2	≥70
SECTION III- ELECTRICAL CHARACTERISTICS			
Parallel layer to breakdown voltage (90°C transformer oil)		kV	≥35
Dielectric strength (90°C transformer oil)	0.5mm-1.0mm	MV/m	≥14.0
	1.1mm-2.0mm		≥11.2
	2.1mm-3.0mm		≥10.0
Parallel layer to insulation resistance, immersed in water for 24 hours		MΩ	≥1.0x10^2
Dielectric constant (1MHz)		-	≤5.5
Dielectric loss factor (1MHz)		-	≤0.05
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 200°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	±0.12	5.0	±0.52
1.0	±0.18	8.0	±0.72
2.0	±0.28	10.0	±0.82
3.0	±0.37	20.0	±1.30



Semiconductor Fiberglass Laminates

This product is made of electrical alkali-free glass fiber cloth impregnated with epoxy resin and conductive components after baking and hot pressing.

Standard

XJDG-JS-04· Z-2024

Regular Size

- 1020*2020mm

Heat Resistance

Class B / F

Raw Material

Adhesive / Epoxy resin
Reinforcing material / Carbon black glass fiber cloth

Certificate Available

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

Characteristics

- High mechanical strength
- Shows conductivity both parallel and perpendicular to the layers in its construction

Industries

- Generator and motor
- Power Generating Industry
- PCB Industry

Technical Data Sheet

Product name	Semiconductor Fiberglass Laminates	
SECTION I - MISC CHARACTERISTICS		
Density	g/cm^3	1.70-1.90
Flammability	-	HB
Water absorption (5mm)	%	≤0.8
Reinforcement type	-	Glass fabrics
Thermal characteristics	°C	130/155
Colour	-	Black
SECTION II- MECHANICAL CHARACTERISTICS		
Bending strength	MPa	≥340
Impact strength//	kJ/m^2	≥33
SECTION III- ELECTRICAL CHARACTERISTICS		
Surface resistivity	kΩ/square	1 - 100
Volume resistivity (normal condition)	kΩ.cm	1 - 50
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/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 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	±0.12	5.0	±0.52
1.0	±0.18	8.0	±0.72
2.0	±0.28	10.0	±0.82
3.0	±0.37	20.0	±1.30

Magnetic Fiberglass Laminates

This product is made of electrical glass cloth with alkali-free that impregnated with epoxy resin under pressure,with high mechanical strength, heat resistance and good magnetic permeability.

Standard

JB/T 13478-2018

Heat Resistance

- 3331: Class B
- 3341: Class F
- 3351: Class H

Regular Size

- 1020×1220mm
- 915×1220mm

Raw Material

Adhesive / High temperature resistant epoxy resin
Reinforcing material / Alkali free glass fiber cloth

Certificate Available

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

Characteristics

- Magnetic conductive
- High mechanical strength
- Good heat resistance

Industries

- Motor and Generator
- Power Generating Industry

Technical Data Sheet

Product name			Magnetic fiberglass laminates		
Index			Unit	XJ-3331	XJ-3341	XJ-3351
SECTION I - MISC CHARACTERISTICS						
Density			g/cm^3	≥2.8	≥3.0	≥2.8
Flammability			-	HB		
Water absorption (5mm)			%	≤1.0	≤1.0	≤1.0
Reinforcement type			-	Glass Fabrics		
Thermal characteristics			°C	≥130	≥155	≥180
Colour			-	Black		
Thermal stability(180°C /24h)			No flow, no deformation, color difference after baking is allowed.			
SECTION II- MECHANICAL CHARACTERISTICS						
Bending strength	MD	23°C ±2°C	MPa	-	-	≥195
		150-180°C±2°C		-	-	≥100 (180°C±2°C)
	CMD	23°C ±2°C		≥105	≥150	≥150
		150-180°C±2°C		-	≥120 (150°C±2°C)	≥80 (180°C±2°C)
Impact strength//			kJ/m^2	≥40	≥40	≥40
SECTION III- ELECTRICAL CHARACTERISTICS						
Relative magnetic permeability($1.6x10^4$ A/m)			-	To be agreed upon by supply and demand		
Volume resistivity(Under normal conditions)			Ω.cm	-	$≥1.0x10^6$	-
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/155°C/180°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 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	±0.12	5.0	±0.52
1.0	±0.18	8.0	±0.72
2.0	±0.28	10.0	±0.82
3.0	±0.37	20.0	±1.30

Customized Processing Service

All the products are produced according to IEC standard and GB standard. We have our own testing lab to test the mechanical properties, electrical properties and thermal properties of the products. We also have strict quality control on the the raw materials and semi-finished products. Also test all batches of finished products to make sure that the products can meet the customers' requirements.

The data stated above are average values verified on the basis of regular statistical tests and controls. All information in this publication is based on current technical knowledge and experience. Due to the large number of possible influences during processing and application, it does not exempt the user/processor from carrying out their own tests and trials. Responsibility for the evaluation of the end product for the intended use and compliance with the applicable relevant legal requirements lies exclusively with the user/processor as well as the distributor of the respective product/end product. Suggested uses do not constitute an assurance of suitability for the recommended purpose. The information in this publication and our declarations in connection with this publication do not constitute acceptance of a guaranteed or warranted characteristic. Guarantee declarations require our separate express written declaration in order to be effective. We reserve the right to adapt the product to technical progress and new developments.

The products described in this publication are only sold to customers with the appropriate expertise and not to consumers. Please do not hesitate to contact us if you have any questions or if you experience any specific application problems. If the application for which our products are used is subject to an official approval requirement, the user/processor is responsible for obtaining these approvals. Our application recommendations do not exempt the user/processor from the obligation to examine and, if necessary, clarify the possibility of infringements of third-party rights.

ECOCORE NEW MATERIAL CO.,LTD

Innovation Park, Zhuzhou Economic Development Zone,
Hunan Province, China
Tel: +86 181 7330 3620
Web: www.ecmaterial.com
Email: Jack@ecmaterial.com