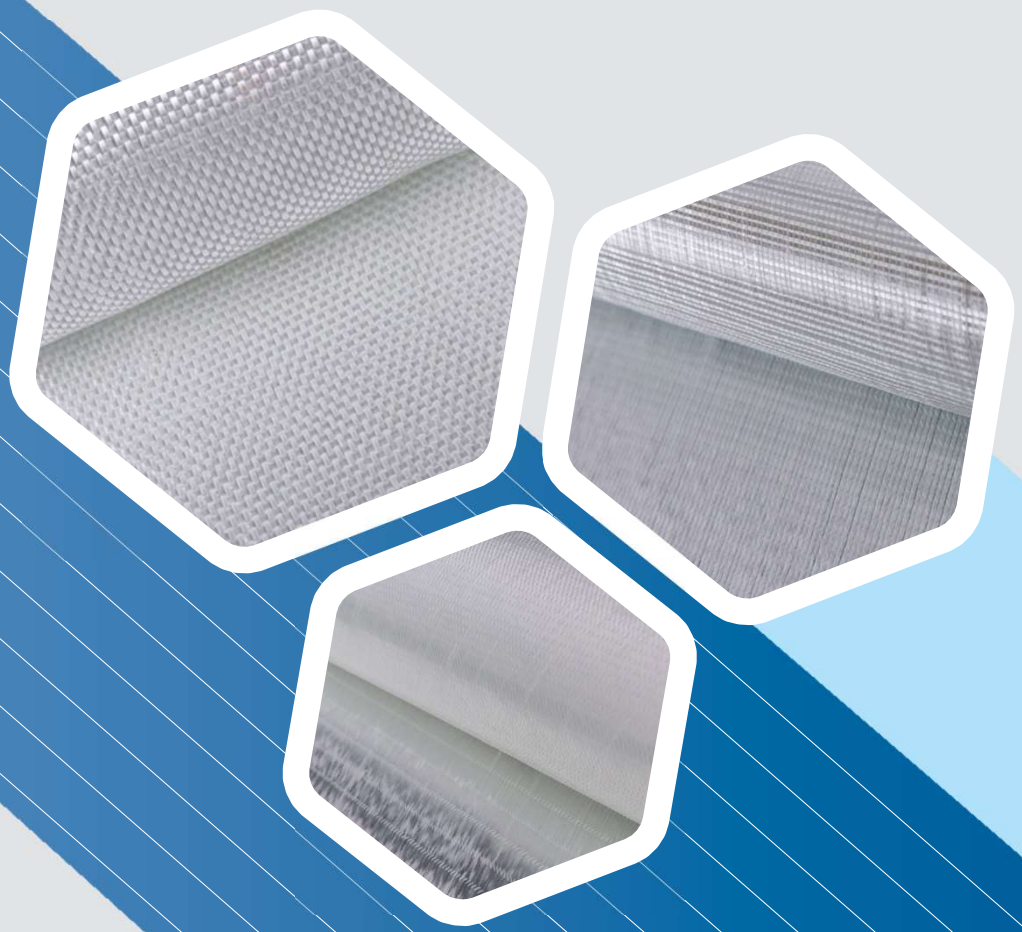
Fabric Material Catalog



Marketed by Carmat Ltd

PRODUCT CONTENTS

Fiberglass Fabric

Stitched Mat

Fiberglass Stitched Mat is made by chopping continuous strands into chopped strands and stitching them together. The area weight can be 300g/m1800~2g/m width the and ,2 100 be canmm-3000mm. Also can select to add the Polyester veil (30g/40g) or chopping layer (300g) according to the customer's requirement.

Product Usage

It's mainly applied to fiberglass pipes, pultrusion profiles and insulation materials.

Code	Width (mm)	Gram (g/ ㎡)	Surface Mat (g/ ㎡)	Combo Layer
EMK300	100~3000	300		
EMK380	100~3000	380		
EMK450	100~3000	450		
EMK600	100~3000	600		
EMK300M50	100~3000	350	50	
EMK450M50	100~3000	500	50	
EMKS300/40	100~3000	350		Polyester veil 40g
EMKS380/30	100~3000	420		Polyester veil 30g
EMKC300/300	100~3000	610		Chopped Mat 300

Woven Roving

Fiberglass Woven Roving is reinforcing fabric weaved with various input roving. It could also be weaved into uni-directional woven roving (weft) and uni-directional woven roving (warp). The width ranging from 100mm to 3300mm. And the basic weight can be 270g-1800g/m2.

Product Usage

It's mainly applied to boat,fiberglass pipes,tanks and sports equipment.

Code	Gram (g/㎡)	Width (cm)		Resin Compatible
		Min	Max	
EWR270	270	100	3300	Polyester resin, Epoxy resin, Vinyl resin, Phenolic resin etc.
EWR400	400	100	3300	
EWR600	600	100	3300	
EWR800	800	100	3300	

Woven Roving
Combo Mat

Fiberglass Woven Roving Combo Mat is a complex of woven roving and chopped strands. The unit weight of woven roving is 300-1000g/ m2 , and the chopped layer is 100-600 g/ m2 , the width is 100mm-3000mm.

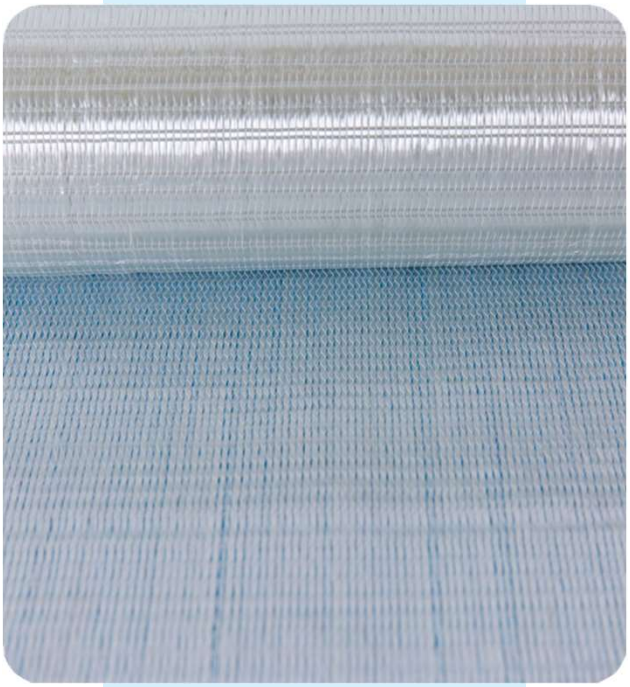
This fabric is suitable for the Polyester resin, Epoxy resin, Vinyl resin and Phenolic resin.

Product Usage

It's mainly applied to make boat, FRP panel, automotive parts etc.

Code	Width (cm)		Woven Roving (g/ ㎡)	Chopping Layer (g/ ㎡)	Gram (g/ ㎡)
	Min	Max			
ESM300/150	100	3300	300	150	460
ESM300/300	100	3300	300	300	610
ESM600/300	100	3300	600	300	915
ESM800/450	100	3300	800	450	1260

Warp UD



Multiaxial Fabrics—Warp UD cloth is weaved with direct roving along the warp (0°) direction, also can select to add chopping layer (300-600 g/m2), using the polyester stitching yarn to stitch together.

The area weight can be 300g/ m2 ~1800g/ m2, and the width can be 100-2540mm. Properties:

1)Fiber straight arranged 2) High strength along the roving 3)Binder free

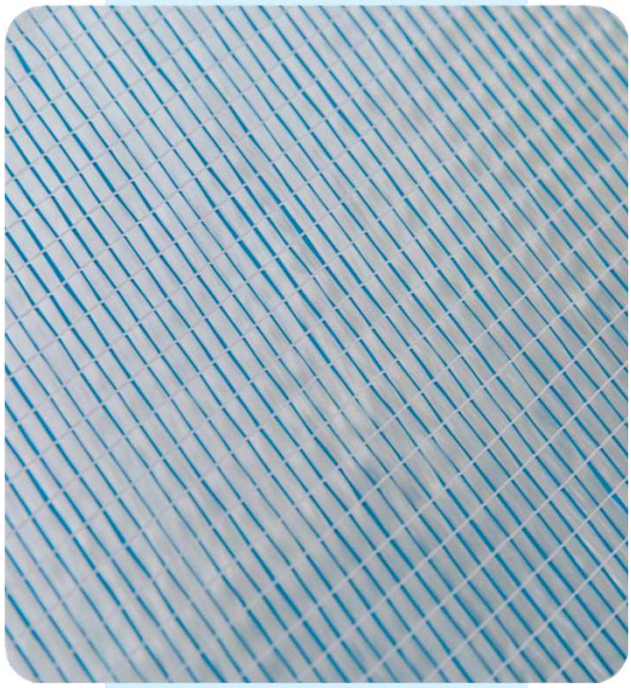
Product Usage

It's mainly applied to wind blade, FRP pipe, pultruded parts, sports equipment, etc.

Code	Gram (g/ ㎡)	0° Gram (g/ ㎡)	90° Gram (g/ ㎡)	Chopping Layer Gram (g/ ㎡)
UD300	338	282	45	
UD600	610	550	45	
UD900	920	850	60	
UD1200	1200	1131	60	
UDM1250	1250	1131	60	50

Weft UD

Multiaxial Fabrics— Weft UD cloth is weaved with direct roving along the weft(90°) direction, also can select to add chopping layer(50-300g/㎡), using the polyester stitching yarn to stitch together. The area weight can be 230g/㎡ ~1200g/㎡, and the width can be 100mm-2540mm. It's mainly applied to FRP pipe, chemical tanks etc.

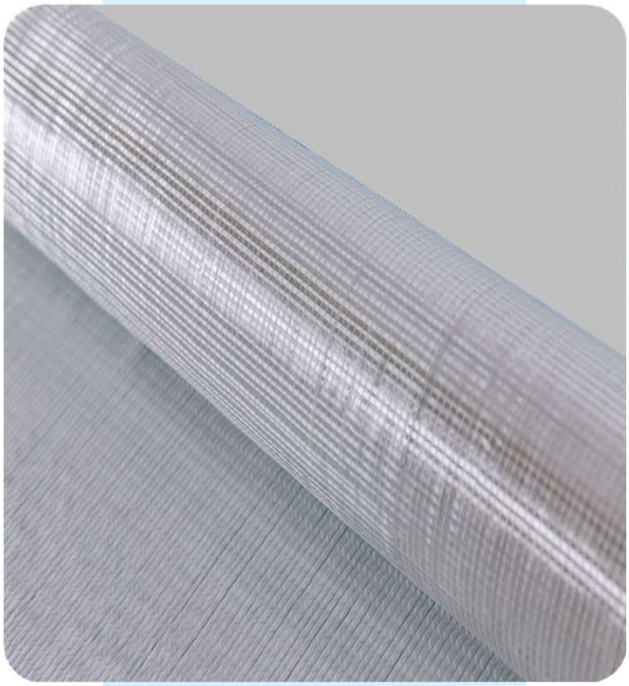


Product Usage

It's mainly applied to wind blade, FRP pipe, pultruded parts, sports equipment, etc.

Code	Gram (g/㎡)	90° Gram (g/㎡)	Chopping Layer Gram (g/㎡)
T230	230	224	
T300	310	303	
T600	612	602	
TM300/150	460	303	150
TM300/300	610	303	300

Warp Biaxial (0°、90°)



Bias (0-- 90°) fabric is stitched with direct roving in 0°and 90°direction. The area weight can be 300g/m² ~1800g/m² . Bias Mat is made by combining the chopped strands (50g-600g) onto the surface of bias fabric. The product is with even thickness, fast wet-out and better reinforcement.

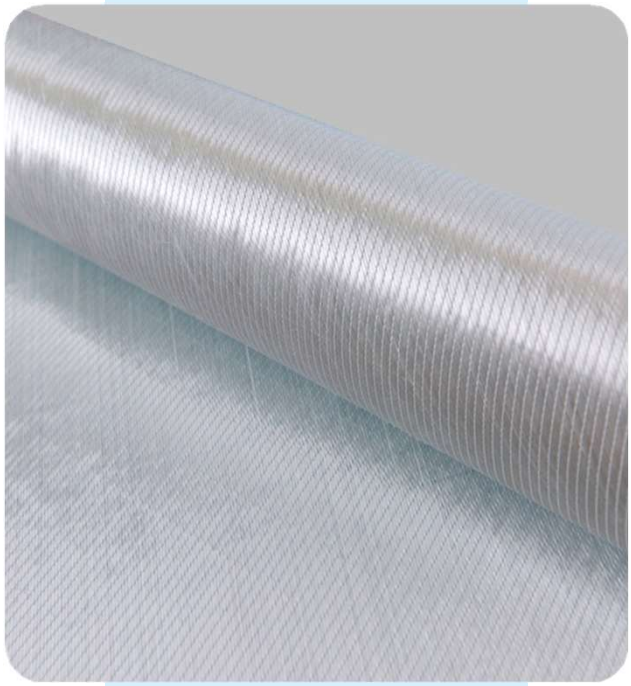
Product Usage

It is mainly applied to the engine room casing, wind deflector, boat, auto frame and pultrusion profiles.

Code	Gram (g/ ㎡)	0° Gram (g/ ㎡)	90° Gram (g/ ㎡)	Chopping Layer Gram (g/ ㎡)
LT400	410	200	200	
LT600	625	303	315	
LT800	810	401	400	
LT1000	1010	500	500	
LT1200	1220	607	607	
LT1600	1610	800	800	
LT400/M100	510	200	200	100
LT 600/M225	850	303	307	225
LT800/M300	1115	401	400	300
LT1000/M80	1090	500	500	80
LT1200/M80	1300	607	607	80
LT1600/M80	1690	800	800	80

Double Biaxial (±45°)

Double fabrics (±45°) is stitched with direct roving in +45°and -45°direction. The area weight can be 300g / m2 ~2000 g / m2 . Also can select to add the chopping layer (100g~600g) or functional material (like PP).



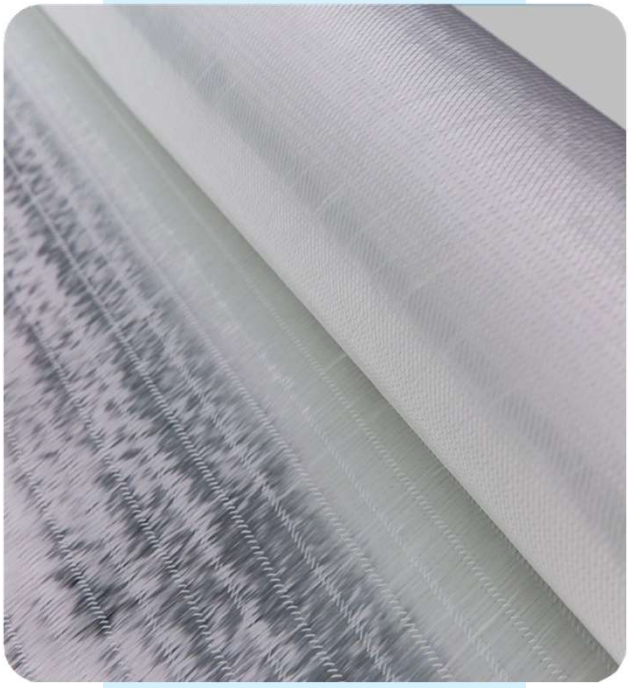
Product Usage

It is mainly applied to the wind blade, FRP mold, boating etc.

Code	Gram (g/ ㎡)	45° Gram (g/ ㎡)	-45° Gram (g/ ㎡)	Chopping Layer Gram (g/ ㎡)
BX300	310	150	150	
BX450	460	225	225	
BX600	610	300	300	
BX800	810	400	400	
BX400/M100	510	200	200	100
BX600/M275	885	300	300	275
BX800/M300	1110	400	400	300

Triaxial

(0° /45° /-45° or45° /90° /-45°)



Mutiaxial fabrics is stitched with direct roving in 0°/+45°/-45°or +45°/90°/-45° direction. The area weight can be 300-2000gsm . Also can select to add the chopping layer(50g~600g).

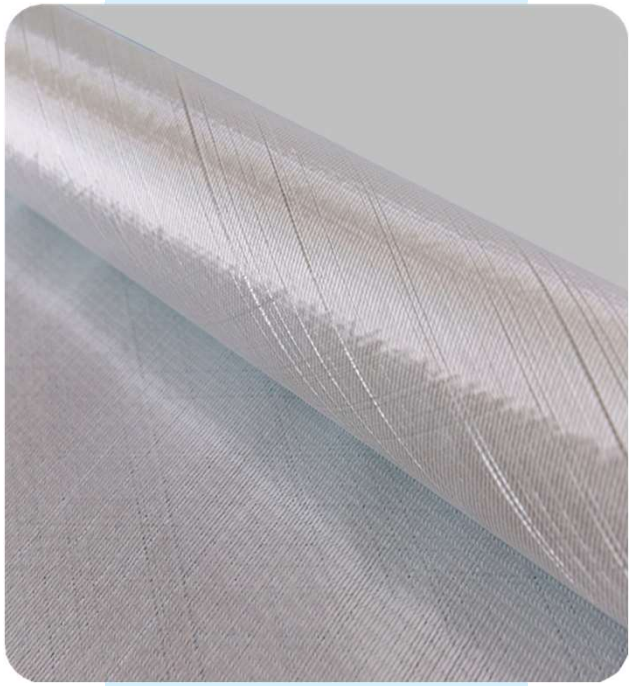
Product Usage

It is mainly applied to the wind blade, pultrusion profiles , FRP mold, boating etc.

Code	Gram (g/ ㎡)	0° Gram (g/ ㎡)	90° Gram (g/ ㎡)	45° Gram (g/ ㎡)	-45° Gram (g/ ㎡)	Chopping Layer Gram (g/ ㎡)
TLX600	610	280		160	160	
TLX800	815	305		250	250	
TLX1200	1215	575		315	315	
TTX800	810		280	260	260	
TTX1200	1208		595	300	300	
TTX800/M225	810		280	260	260	225g

Quadraxial
(0° /45° /-45° /90°)

Multiaxial fabrics is stitched with direct roving in 0°/+45°/-45°/90°direction. The area weight can be 300-2000gsm . Also can select to add the chopping layer(50g~600g).

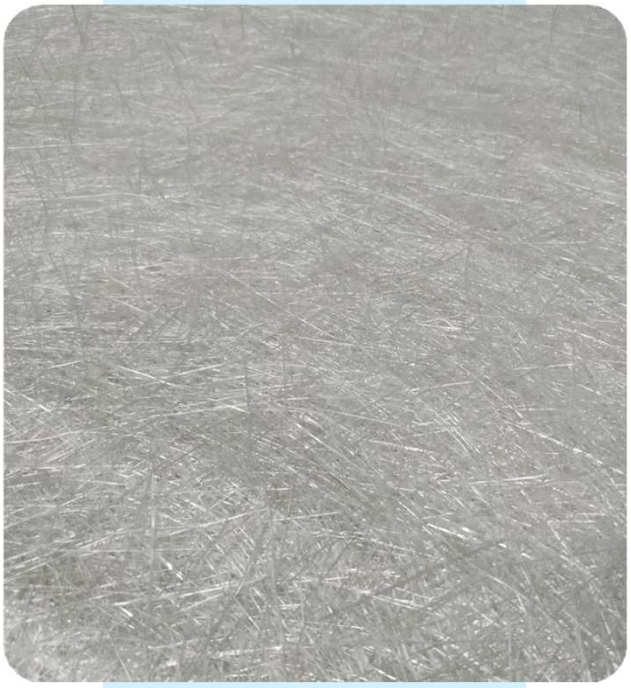


Product Usage

It is mainly applied to the wind blade, pultrusion profiles , FRP mold, boating etc.

Code	Gram (g/ ㎡)	0° Gram (g/ ㎡)	90° Gram (g/ ㎡)	45° Gram (g/ ㎡)	-45° Gram (g/ ㎡)	Chopping Layer Gram (g/ ㎡)
QX600	602	142	148	156	156	
QX800	814	201	201	201	201	
QX1200	1202	283	307	301	301	
QX800/M275	814	201	201	201	201	275g

Chopped Strand Mat



Fiberglass Chopped Strand Mat is made by chopping continuous strands into unit length chopped strands which to be spread out randomly and evenly, then bonding them together with powder or emulsion binder. It is used primarily for hand lay-up process, filament winding process and press molding of FRP products.

Product Usage

It's mainly applied to boat, auto parts, various panel, housings.

Code	Gram (g/ ㎡)	Width (mm)	Total Weight (kg)	Adhesive
EMC225	225	1040	30	Powder/Emulsion
EMC300	300	1040	30	
EMC450	450	1040	30	
EMC600	600	1040	30	

Chopped Strand Combo Mat

Fiberglass Chopped Strand Combo Mat is made by chopping continuous strands into unit length chopped strand which to be spread out randomly and evenly, then combining with polyester veil, bonding them together with powder.

Product Usage

It's mainly applied to pultrusion profiles.

Code	Chopping Layer Gram (g/ ㎡)	Combo layer gram (g/ ㎡)	Adhesive
EMCS300/40	300	Polyester veil 40g	Powder/Emulsion
EMCS380/30	380	Polyester veil 30g	

Surface Mat

Fiberglass surface mat, made by wet forming of fiberglass, is mainly used in the surface layer of fiberglass reinforces products. It can be divided into winding type and hand paste type.

That product has many excellent characteristics, as uniform fiber distribution and soft hand feel; the surface is flat with less glue content; fast resin penetration; good film properties, etc.

Product Usage

It's mainly applied to boat, auto parts, sports parts, housings.

Code	Gram (g/ ㎡)	Width (mm)	Roll Length (m)
SME10	10	100-1250	300-500
SME20	20	100-1250	300-500
SME30	30	100-1250	300-500
SME50	50	100-1250	300-500

Low Weight Fiberglass Cloth

Fiberglass cloth is textile made of E-glass rovings, rovings by silane coupling agent treatment, easy to be resin infiltration, corrosion resistance, high strength, and good adhesiveness between the layers, can be suitable for all kinds of surface construction.

Product No.	Density Ends (cm)		Area Weight (g/㎡)	Thickness (mm)	Width (cm)	Length (mm)	Breaking Strength (N) ≥	
	Warp (cm)	Weft (cm)					Warp (cm)	Weft (cm)
EWR120 /4oz	16	12	110~130	0.12	90~130	300~600	490	490
EWR180 /6oz	18	12	170~200	0.18	10~100	300~1200	1050	730
EWR200	8	7	180~220	0.21	10~100	200	≥ 1200	≥ 1150

PTFE Coated Fiberglass Fabric

We use imported glass fiber as the material to make plain, twill, satin or other weaves into high-grade fiberglass cloth substrate, and then fully impregnated with unique process technology, coated with high-quality PTFE resin to produce PTFE high temperature fabric with multiple thicknesses and widths.

Product Usage

- Gasket for heating food, baking mat, microwave oven gasket;
- Anti-adhesive lining, gasket, mask, etc.;
- According to different specifications, coated cloth can be used for conveyor belts of various drying machines, adhesive taps, sealing taps, etc.
- It is used for corrosion protection of various petrochemical pipelines, electrical and electronic insulation, high temperature-resistant cladding materials, environmental desulfurization of power plant exhaust gas, etc.

Product Features

●Stable dimension, high intensity, elongation coefficient less than 5%.

●Good temperature resistance, continous working temperature-70 ~ 260℃ .

●Low coefficient of friction and dielectric constant, high insulation property.

●Non-stick, easy to clean stains and adhesive on the surface.

●Good chemical resistance, it can resist almost all of chemical, acids, alkalis, and salt, it is fireproof, aging resistance.

Item No.	Color	Thickness (mm)	Base Fabric Weight (g/㎡) ±3%	Total Weight (g/㎡) ±5%	Tensile Strength (N)	
					Warp	Weft
9008AJ	brown	0.07	48	150	650	550
9008BJ	black	0.07	48	160	460	420
9008J	white	0.07	48	150	600	500
9012AJ	brown	0.105	105	228	1150	1050
9012J	white	0.105	105	220	900	750
9013AJ	brown	0.125	105	250	1200	1100
9013BJ	black	0.125	105	260	1050	850
9013J	white	0.125	105	250	990	900
9015AJ	brown	0.14	105	300	1350	1250
9018AJ	brown	0.17	165	350	1750	1550
9025AJ	brown	0.23	205	490	2200	1750
9025BJ	black	0.24	205	450	2000	1700
9025J	white	0.24	205	450	2000	1700
9030AJ	brown	0.28	293	620	2500	1800
9030BJ	black	0.28	293	610	2400	1700
9030J	white	0.28	293	650	2600	1900
9035AJ	brown	0.32	255	620	3000	2100
9035BJ	black	0.32	255	620	2800	2000
9036AJ	brown	0.35	333	690	3200	2200
9036BJ	black	0.35	333	690	3000	2000
9040AJ	brown	0.39	333	770	3200	2100
9040BJ	black	0.39	333	770	2800	1800
9055AJ	brown	0.53	538	1000	4200	3500
9055BJ	black	0.53	538	1000	3500	3000
9065AJ	brown	0.63	578	1180	4500	3800
9065BJ	black	0.63	578	1180	4000	3200
9080AJ	brown	0.78	768	1550	5500	4000
9090AJ	white/ brown	0.9	865	1990	6500	5500
9090BJ	black	0.9	865	1990	6500	5500
9100AJ	brown	0.98	852	1250	6000	5000

PTFE Fiberglass Adhesive Tape

Our company uses imported raw materials to produce PTFE adhesive tape, film tape, glass fiber adhesive tape and other kinds of adhesive tape with different specifications.

Product Features

PTFE adhesive tape has smooth surface, Non-stick, chemical corrosion resistance and high temperature resistance, as well as excellent insulation performance, which is widely used in packaging, thermoplastic, composite, heat sealing, electronic and electrical industries. PTFE tape reinforced by fiberglass has the characteristics of high strength and can be used in the industries of sizing machine roller and thermoplastic demoulding, etc. It can be reused and easily replaced.

Item No.	Color	Thicknes (mm) ±0.02	Base Fabric Weight (g/㎡)	Total Weight (g/㎡)	Adhesion Strength (to Steel(N/4cm) GB-T2794	Docking Test (times)	High Temperature Peel Test(260℃, half hour)	Width (m)
F7008S	Silver	0.14	≥ 150	≥ 200	≥ 15	≥ 3	No peeling for half an hour at 260℃	1.2
F7008	Brown	0.14	≥ 150	≥ 205				
F7013	Brown	0.18	≥ 240	≥ 300				
F7015	Brown	0.2	≥ 300	≥ 355				
F7018	Brown	0.24	≥ 350	≥ 405				
F7025	Brown	0.28	≥ 470	≥ 530				
F7035	Brown	0.4	≥ 620	≥ 680				

PTFE Film
Adhesive Tape

Our company uses imported raw materials to produce PTFE adhesive tape, film tape, glass fiber adhesive tape and other kinds of adhesive tape with different specifications.

Product Features

PTFE adhesive tape has smooth surface, Non-stick, chemical corrosion resistance and high temperature resistance, as well as excellent insulation performance, which is widely used in packaging, thermoplastic, composite, heat sealing, electronic and electrical industries. PTFE tape reinforced by fiberglass has the characteristics of high strength and can be used in the industries of sizing machine roller and thermoplastic demoulding, etc. lt can be reused and easily replaced.

Item No.	Thickness	Tensile Strength	Adherence Resistance	Chemical Resistance
FS7005	0.05±0.01mm	200N/100mm	14N/100mm	It can resistall m ost of chemical medicines,acids, alkalis,and all kinds of organic solution.
FS7008	0.08±0.01mm	300N/100mm	20N/100mm	
FS7011	0.11±0.01mm	350N/100mm	18N-25N/100mm	
FS7013	0.13±0.01mm	400N/100mm	25N/100mm	
FS7018	0.18±0.01mm	650N/100mm	44N/100	
FS7025	0.25±0.01mm	950N/100mm	18N-25N/4 cm	

Pipe Insulation
Antiseptic Covering Material

Size stability:
High strength, less than 5% elongation.
Good temperature resistance:
Continuous operating temperature: -70C -260°C
Stability:
low friction, good insulation.
Good adhesion:
Easy to clean all kinds of oil stains, stains or other attachments attached to the surface.
Good corrosion resistance:
Resistant to all kinds of strong acid and alkali corrosion, no combustion, aging resistance.

Product Usage

At present, the products are widely used in various petrochemical, electric power plant, pipeline corrosion resistance and energy-saving insulation coating, electrical insulation, Anti-high temperature insulation jacket materials, safety clothing, equipment cover, splash jacket, power plant waste and other environmental protection fields.

Item No.	Thickness (mm)	Base Fabric Weight (g/ ㎡) ±3%	Total Weight (g/ ㎡) ±5%	Tensile Strength (N)		Tear Strength (N)	
				Warp	Weft	Warp	Weft
Black Antistatic	0.43	283	540	3000	2200	100	80
Gray Double	0.43	283	610	3500	2400	120	100
Blue Single	0.43	283	540	3000	2200	100	80
Gray Single	0.43	405	540	3500	2400	120	100

Packaging, Storage Conditions

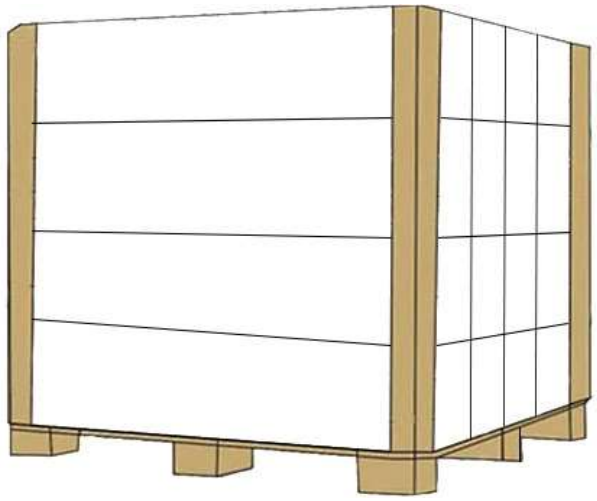
Storage Conditions

Unless otherwise specified, the fiberglass products should be stored in a dry, cool and moisture-proof area.

The fiberglass products should remain in their original package until prior to use. The room temperature and humidity should be always maintained at -10℃ ~ 35℃ and ≤80% respectively.

To ensure safety and avoid damage to the product, the pallets should not be stacked more than three layers high.

When the pallets are stacked in 2 layers, special care should be taken to correctly and smoothly move the top pallet.



(Packaging Example)

Packaging

The product can be packed in bulk bags, heavy-duty box, and composite plastic woven bags.

For example:

Bulk bags can hold 500kg-1000kg each;

Cardboard boxes and composite plastic woven bags can hold 30kg-50kg each.

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