

HITEX

GLASS FIBER

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**Hitex - The Strength to Innovate:
Unveiling the Future with Advanced
Composites.**

Catalog 2024

Hitex Composite(Ningbo) Co., Ltd.



ABOUT HITEX

Welcome to Hitex Composites, your premier destination for top-quality composites and exceptional service. Our company has been providing high-quality composites to customers for many years, and we take great pride in our ability to consistently deliver excellence in both product quality and customer service.

At Hitex Composites, we specialize in the design, development, and manufacture of advanced composites for a wide range of industries, including aerospace, automotive, marine, and construction. We take advantage of our location in China to provide our customers with a competitive edge in terms of pricing, quality, and lead times. We have extensive experience in sourcing the highest quality raw materials from trusted suppliers, ensuring that we can offer our products at a competitive price without sacrificing quality.

Moreover, our state-of-the-art manufacturing facilities are equipped with the latest technology and staffed by skilled workers who are dedicated to producing the highest quality composite materials and products. This enables us to deliver products that meet or exceed the expectations of our customers.

In addition to our manufacturing capabilities, we offer fast turnaround times and flexible production schedules to accommodate the needs of our customers. Whether you need

a small batch of custom products or a large-scale production run, we can deliver your order quickly and efficiently.

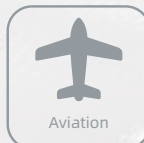
We believe that customer satisfaction is key to our success, and we go above and beyond to ensure that our clients receive the best possible service. Our team of experienced professionals is dedicated to providing personalized solutions tailored to your specific needs, and we work closely with you to ensure that your project is completed on time and within budget.

Whether you are looking for custom composite materials, high-quality composite products, or expert advice on composite design and engineering, Hitex Composites is your trusted partner. We are committed to providing you with the perfect service, high quality, and professionalism you deserve. Contact us today to learn more about our services and how we can help you take your project to the next level.

MAIN APPLICATION AREAS OF GLASS FIBER



Construction



Aviation



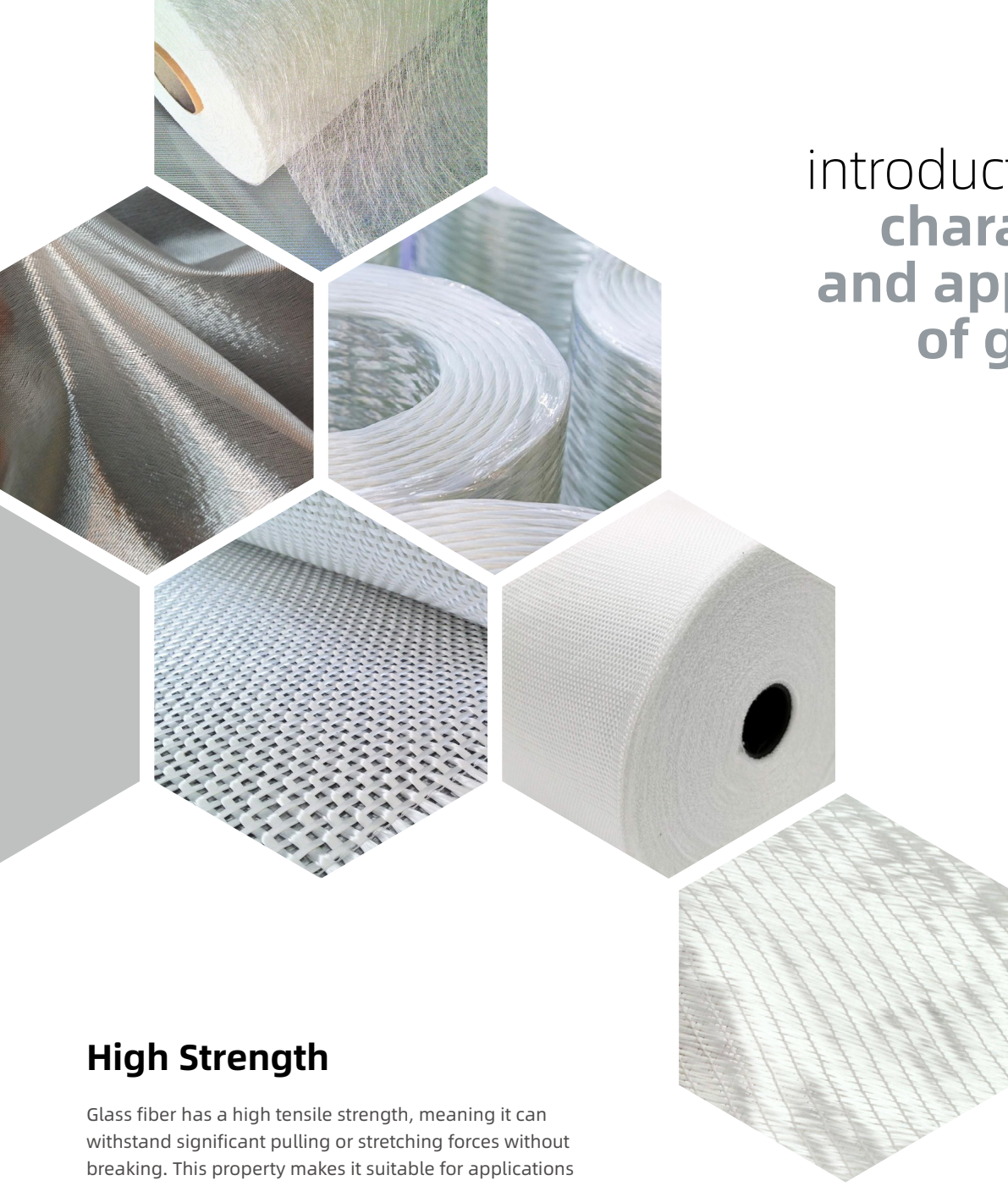
Wind
Energy



Automobile



Sports



Here is an introduction to **the characteristics and applications of glass fiber products:**

High Strength

Glass fiber has a high tensile strength, meaning it can withstand significant pulling or stretching forces without breaking. This property makes it suitable for applications where strength is crucial, such as in construction, aerospace, and automotive industries.

Lightweight

Despite its high strength, glass fiber is relatively lightweight. This characteristic allows for the production of lightweight and durable materials, reducing the overall weight of structures or products without compromising their strength or performance.

Chemical Resistance

Glass fiber exhibits excellent resistance to many chemicals, including acids, alkalis, and solvents. This chemical resistance property makes it suitable for use in corrosive environments or applications where exposure to chemicals is expected.

Thermal Insulation

Glass fiber has excellent thermal insulation properties. It has a low thermal conductivity, meaning it is effective in preventing the transfer of heat. This characteristic makes it widely used as an insulating material in industries such as construction, HVAC, and energy.

Direct Roving

Direct roving is an E-glass roving without twist, coated with silane-based size for reinforcing polyester, epoxy, and other resins. It is used in making GRP FRP pipes, pressure vessels, and more, offering rapid wet out, low resin demand, and high mechanical properties in composite applications.

Code	Tex	Filament Diameter(m)	Applicable Process	Roll Weight(Kgs)
EDR120-S501	1200	17	Pultrusion	16
EDR240-S501	2400	24	Pultrusion	
EDR440-S501	4400	23	Pultrusion	
EDR489-S501	4800	24	Pultrusion	
EDR120-S500	1200	17	Filament winding	
EDR240-S500	2400	24	Filament winding	
EDR440-S500	4400	23	Filament winding	
EDR480-S500	4800	24	Filament winding	
EDR115-S502	1150	17	Weaving	

Fiberglass Yarn

Fiberglass yarn exhibits electrical resistance, high tensile strength, excellent dimensional stability, corrosion resistance, and heat resistance. Our range encompasses yarn styles like G37 1/0, G75 1/0, G150 1/0, as well as plied and twisted yarns like G37 1/2, G75 1/3, G150 1/2, and more. Commonly utilized in fabric, tape, rope, and textile manufacturing, fiberglass yarn is also an essential component in composite materials for reinforcement and increased strength.

Single Yarn

Code	Density(Tex)	Net Weight (Kg/Bobbin)
EC DE150 1/0 0.7Z	34	3.62
EC DE75 1/0 0.7Z	68	3.62/4.5/7.4
EC DE37 1/0 0.7Z	136	3.52
EC E110 1/0 1.0Z	45	7.27
EC G150 1/0 0.7Z(0.5Z)	34	3.62
EC G75 1/0 0.7Z(0.5Z)	68	8.6/3.6/4.09
EC G67 1/0 0.7Z	74	8.1
EC G37 1/0 0.7Z(0.5Z)	136	8.6
EC G25 1/0 0.7Z	204	7.5
EC H37 1/0 0.7Z	136	8.49
EC H25 1/0 0.7Z	204	7.5
EC H12 1/0 0.7Z	408	7.5
EC K37 1/0 0.7Z	136	8.6
EC K18 1/0 0.7Z	272	8.6

Plied Yarn

Code	Density(Tex)	Net Weight (Kg/Bobbin)
EC 4 34X1X3 S150(S120)	101.1	3.6
EC 4 34x1x6 S150(S120)	202.2	3.6
EC 5 11x1x2 S180	22.4	1.81
EC 5 11X1X3 S180	33.6	2.01
EC 6 34X1X2 S100	68	3.6
EC 6 34X1X4 S100	136	3.6
EC 6 68X1X2 S112(S152)	136	3.6
EC 6 136X1X2 S112(S152)	272	3.6
EC 6 136X1X3 S112(S152)	408	3.6
EC 6 136X1X4 S112(S152)	544	3.6
EC 7 22X1X3 S100(S152)	67.5	3.6
EC 9 34X1X3 S100(S112)(S152)	102	3.6
EC 9 68X1X2 S100(S112)(S152)	136	3.6
EC 9 68X1X3 S100(S112)(S152)	206	3.6

Fiberglass Woven Fabric

Fiberglass woven fabric is a shuttle-woven material known for its high performance and attractive appearance, widely used in various industries such as aircraft, space flight, shipbuilding, chemicals, medicine, military, and sports equipment. It is commonly employed in the manufacturing of FRP fishing poles, golf clubs, baseball bats, surfboards, skis, and ice hockey sticks.

Code	Weave	Weight(g/m ²)	Yarn Count(ends/cm)		Length(m)
			Warp	Weft	
EW30	Plain	23±2	20±2	18±2	50-200
EW60	Plain	48±4	20±2	20±2	
EW80	Plain	80±8	12±1	12±1	
EWT80	Twill	80±8	12±2	12±2	
EW100/EWT100	Plain/Twill	110±10	16±1	15±1	
EW130	Plain	130±10	10±1	10±1	
EW160/EWT160	Plain/Twill	160±12	12±1	12±1	
EW200/EWT200	Plain/Twill	198±14	8±0.5	7±0.5	
EW200/EWT200	Plain/Twill	200±20	16±1	13±1	
EW300/EWT300	Plain/Twill	300±24	8±0.5	7±0.5	
EW400/EWT400	Plain/Twill	400±32	8±0.5	7±0.5	
EW400/EWT400	Plain/Twill	400±32	6±0.5	6±0.5	

Woven Roving

Woven roving is a plain pattern fabric made from direct rovings. It ensures controlled wet-out and high-quality laminate properties. It is commonly used in boat building, storage tanks, swimming pools, and various other applications. Woven roving is compatible with polyester, vinyl, and epoxy resins and suitable for hand lay-up, filament winding, and mold press processes.

Code	Weave	Weight(g/m ²)	Resin Compatibility	Roll Width(mm)
EWR200	Plain	200	UP, VE, EP	20-3000
EWR270		270		
EWR300		300		
EWR360		360		
EWR400		400		
EWR450		450		
EWR500		500		
EWR600		600		
EWR720		720		
EWR800		800		
EWR860		860		
EWR1000		1000		
EWR1200		1200		
EWR1500		1500		
EWR1600		1600		

Fiberglass Multiaxial Fabrics

Fiberglass multiaxial fabrics is a kind of multi-axis and multi-layered reinforcements. Layer count, orientation, weight and fiber content of the layers vary based on product line and application via polyester yarn. Fabrics can be produced using multiple axis(0°, 90°, +45°, -45°), or combined with chopped mat layer. Mainly used for Pultrusion, Hand lay-up, Filament Winding and RTM process, applied to wind energy, marine/ship building, recreation/leisure products, automotive, aerospace & defense etc.

Code	Total Weight(gsm)	0° (g/m ²)	90° (g/m ²)	+45° (g/m ²)	-45° (g/m ²)	CSM(g/m ²)	Stitching Yarn(g/m ²)
UDL550	550	420	120	-	-	-	10
UDTM200/225	435	-	200	-	-	225	10
EBX400	407	-	-	200	200	-	7
EBX600	609	-	-	301	301	-	7
BXM600/225	832	-	-	300	300	225	7
LTM600/300	910	336	264	-	-	300	10
LTM800/300	1110	420	380	-	-	300	10
LTM1200/300	1510	672	528	-	-	300	10
TLX1200	1214	567	-	320	320	-	7
QX800	808	283	118	200	200	-	7
QX1200	1207	576	124	250	250	-	7

Fiberglass Tape

Fiberglass tape is made using direct roving, known for its wet-out ability, high strength, and good laminate transparency. It is primarily used for hand lay-up of large, high-strength FRP products, including boats, automotive parts, storage tanks, furniture.

Code	Weave	Weight(g/m²)	Ends Per(cm)	Pics Per(cm)	Length(m)
ET200-25	Plain	200	8±0.5	7±0.5	50 or 100
ET200-50					
ET200-75					
ET200-100					
ET200-150					
ET200-200					
ET200-300					
ET300-25	Plain/Twill	300			
ET300-50					
ET300-75					
ET300-100					
ET300-150					
ET300-200					
ET300-300					

Chopped Strand Mat

Fiberglass Chopped Strand Mat is a durable reinforcement material made from randomly distributed short strands of fiberglass bonded with a binder. Ideal for various FRP processes such as hand lay-up and molding, this mat is employed in making boats, vehicle parts, and building structures due to its consistent density and excellent moldability. Its key advantages include a quick resin absorption rate, efficient air release for cost-effectiveness, and strong mechanical properties resulting in strong, transparent end products.

Code	Weight(g/m ²)	Loss on ignition(%)	Breaking Strength(N)	Moisture Content(%)	Resin Compatibility
EMC100P/E	100	12±3	≥ 50	≤ 0.2	UP,VE,EP
EMC150P/E	150	8±2	≥ 70		
EMC180P/E	180	5±1	≥ 80		
EMC225P/E	225	4.7±1	≥ 90		
EMC300P/E	300	4.5±1	≥ 110		
EMC450P/E	450	4±1	≥ 130		
EMC600P/E	600	3.5±1	≥ 180		

Fiberglass Stitched Mat

Fiberglass stitched mat is made of chopped fiberglass strands randomly dispersed and laid on the forming belt, stitched together by a polyester yarn. Mainly used for Pultrusion, Filament Winding, Hand Lay-up and RTM molding process, applied to FRP pipe and Storage Tank, etc.

Code	Total Weight(g/m ²)	Deviation(%)	CSM(g/m ²)	Stitching Yarn(g/m ²)
EMK200	210	±7	200	10
EMK300	310		300	
EMK380	390		380	
EMK450	460		450	
EMK900	910		900	

Woven Roving Combo Mat

Woven roving combo mat is a composite material that combines woven roving fiberglass fabric with chopped strand mat for a balance of high strength, stiffness, molding capability, and surface finish. It is commonly used in the construction of boats, automotive parts, and large FRP components like wind turbine blades, offering excellent mechanical properties for applications requiring strength, impact resistance, and versatility.

Code	Total Weight(g/m ²)	Deviation(%)	Woven Roving(g/m ²)	CSM(g/m ²)	Stitching Yarn(g/m ²)
WRM300/300	610	±7	300	300	10
WRM500/300	810		500	300	
WRM620/260	890		620	260	
WRM600/300	910		600	300	
WRM600/450	1060		600	450	
WRM800/300	1110		800	300	

Fiberglass Core Mat

Fiberglass core mat is a new material, consisting of a synthetic non-woven core, sandwiched between two layers of chopped glass fibers or one layer of chopped glass fibers and the other on layer of multiaxial fabric/woven roving. Mainly used for RTM, Vacuum Forming, Molding, Injection Molding and SRIM Molding Process, Applied to FRP boat, Automobile, Aeroplane, Panel, etc.

Code	Total Weight (g/m ²)	Deviation (%)	0° (g/m ²)	90° (g/m ²)	CSM (g/m ²)	Core (g/m ²)	CSM (g/m ²)	Stitching Yarn (g/m ²)
CF150/130/150	440	±7	-	-	150	130	150	10
CF300/180/300	790		-	-	300	180	300	
CF450/180/450	1090		-	-	450	180	450	
CF600/250/600	1460		-	-	600	250	600	
CF1100/200/1100	2410		-	-	1100	200	1100	
300/XT1/300	710		-	-	300	100	300	
450/XT1/450	1010		-	-	450	100	450	
600/XT2/600	1410		-	-	600	200	600	
LTNM600/180/300	1090		336	264	-	180	600	
LTNM600/180/600	1390		336	264	-	180	600	

Surface Veil Stitched Combo Mat

Surface veil stitched combo mat is one layer of surface veil (fiberglass veil or polyester veil) combined with various of fiberglass fabrics, multiaxials and chopped roving layer by stitching them together. The base material can be only one layer or several layers of different combinations. It can be mainly applied in pultrusion, resin resin transfer molding, continuous board making and other forming processes.

Code	Total Weight (g/m ²)	Base Fabrics	Base Fabric (g/m ²)	Surface Mat Type	Surface Mat (g/m ²)	Stitching Yarn (g/m ²)
EMK300/P60	370	EMK	300	Polyester Veil	60	10
EMK450/F45	495	EMK	450	Fiberglass Veil	45	
LT1440/P45	1495	LT	1440	Polyester Veil	45	
WR600/P45	655	WR	600	Polyester Vei	45	
CF450/180/450/P40	1130	CF	1080	Polyester Vei	40	

Surfacing Mat

Fiberglass surfacing mat are essential for the outer layers of FRP products, offering a smooth, uniform fiber-dispersed surface and quick resin impregnation. It is ideal for intricate molds, ensuring a high-gloss finish that conceals textures of underlying layers, and enhances strength and corrosion resistance.

Code	Gum Content(%)	Weight(g/m ²)	Roll Width(mm)	Longitudinal Tensile Strength(N)	Moisture Content(%)
S-BM(W)-30	7	30	Normal: 1000 Range: 50-3000	≥ 30	≤ 0.5
S-BM(W)-50	7	50		≥ 50	
S-BM(W)-30	6	30		≥ 25	
S-BM(W)-50	6	50		≥ 40	
S-BM(W)-90	8	90		≥ 200	

Chopped Strands

Chopped Strands are short E-glass fibers coated with silane-based sizing. They reinforce various plastics, offering strong strands with high density and minimal fuzz. They are easy to control in dry applications and exhibit good wet dispersion and flow, enabling effortless impregnation with resin. Chopped Strands enhance mechanical properties and surface quality.

Resin Matrix	Filament Diameter(μm)	Chopped Length(mm)	Weight(kg/bag)
PA/PBT/PET/PC/PP/ABS/AS PC/PEEK/PPS/LCP/LCP/PPO/POM	10, 11, 13	3.0, 4.5	20


Surfboard Fiberglass Fabric


Surfboard fiberglass fabrics are materials made from woven glass fibers, commonly used in the construction of surfboards to reinforce the foam core and enhance durability. These fabrics vary in weight, which influences the board's strength and flexibility, with common options being 40Z and 60Z. Once layered over the surfboard's core, the fabric is secured with resin through a process called glassing, resulting in a composite that is lightweight yet strong, capable of withstanding oceanic forces while providing smooth performance. The choice of fiberglass fabric, including its weight and weave, is crucial in determining the surfboard's final attributes and is tailored to fit different surfing styles and board designs.


Code	Weight	Width	Thickness(mm)	Weight(g/m ²)
SFF40Z/635	40Z	25" (635mm)	0.11	120
SFF60Z/635	60Z	25" (635mm)	0.19	195
SFF40Z/685	40Z	27" (685mm)	0.11	120
SFF60Z/685	60Z	27" (685mm)	0.19	195
SFF40Z/700	40Z	27.6" (700mm)	0.11	120
SFF60Z/700	60Z	27.6" (700mm)	0.19	195
SFF40Z/760	40Z	30" (760mm)	0.11	120
SFF60Z/760	60Z	30" (760mm)	0.19	195
SFF40Z/800	40Z	31.5" (800mm)	0.11	120
SFF60Z/800	60Z	31.5" (800mm)	0.19	195
SFF40Z/1000	40Z	39.4" (1000mm)	0.11	120
SFF60Z/1000	60Z	39.4" (1000mm)	0.19	195
SFF40Z/1270	40Z	50" (1270mm)	0.11	120
SFF60Z/1270	60Z	50" (1270mm)	0.19	195
SFF40Z/1066	40Z	42" (1066mm)	0.11	120
SFF60Z/1066	60Z	42" (1066mm)	0.19	195





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