

HITEX

CARBON 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.

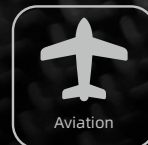
In addition to our manufacturing capabilities, we offer fast turnaround times and flexible production schedules to accommodate the needs of our customers. Whether you need

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

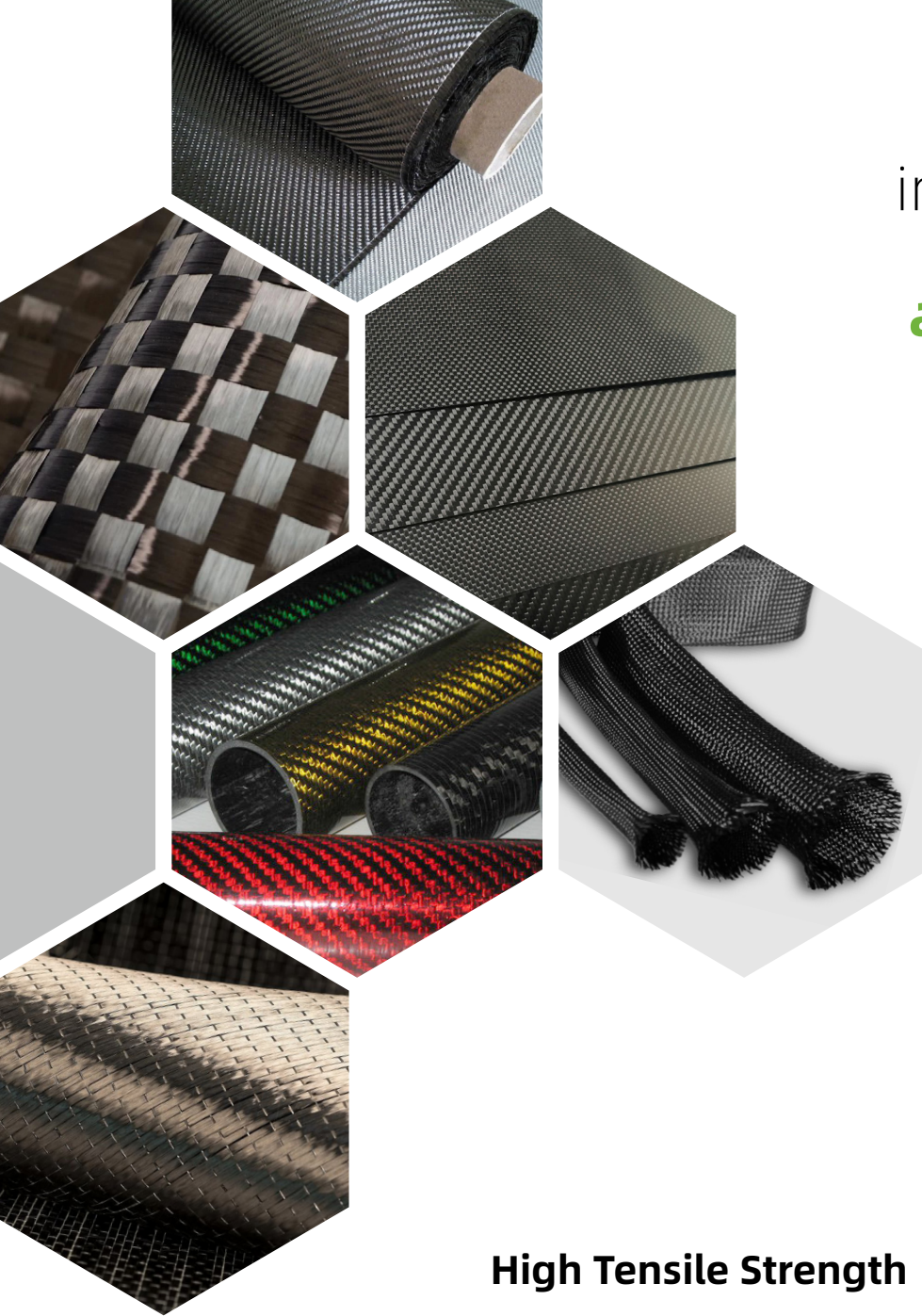
We believe that customer satisfaction is key to our success, and we go above and beyond to ensure that our clients receive the best possible service. Our team of experienced professionals is dedicated to providing personalized solutions tailored to your specific needs, and we work closely with you to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



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



High Tensile Strength

Carbon fiber has a tensile strength of about 2,500-6,000 MPa, making it one of the strongest fibers, particularly when aligned in the same direction.

High-Temperature Tolerance

Carbon fiber retains its properties up to about 2,500° C in non-oxidizing environments, far surpassing many other fibers in terms of thermal stability.

Low Weight

The density of carbon fiber is around 1.5-2.0 g/cm³, significantly lighter than steel (7.85 g/cm³), contributing to its high strength-to-weight ratio.

High Stiffness

Carbon fibers exhibit high modulus, i.e., stiffness, typically 200-700 GPa, which means they deform very little under load, ideal for aerospace, sports equipment, and automotive industries.

Carbon Fiber Roving

Carbon fiber roving refers to a bundle of continuous carbon fiber strands, typically wound onto a spool. It's a basic form of raw carbon fiber material, used in composite manufacturing due to its high strength-to-weight ratio, stiffness, and fatigue resistance. Carbon fiber roving is often impregnated with resin to create carbon fiber reinforced plastic (CFRP) composites, applied in industries like aerospace, automotive, and construction for lightweight yet durable components.

Code	Spec	Strength(Mpa)	Modulus(Gpa)	Elongation(%)	Linear Density(g/km)	Density(g/cm ³)	Diameter(μm)
KF301/45	3K	4000	230	1.8	198	1.80	7
	12K	4200	230	1.8	800		
	24K	4200	230	1.9	1600		
	48K	4200	240	1.8	3200		
KF301/45S	12K	4500	230	1.9	800	1.80	7
	24K	4500	230	1.9	1600		
	48K	4500	240	1.8	3200		
KF301/45T	12K	4500	210	2.1	800	1.80	7
KF301/49S	12K	4900	240	2.0	800	1.80	7
	24K	4900	240	2.0	1600		
	24K(NEW)	5500	255	2.1	1600		
	48K	4900	240	2.0	3200		
KF301/49T	12K	4900	210	2.3	800	1.80	7
KF301/50S	36K	6000	265	2.2	1800	1.80	7
KF301/55S	12K	5900	295	2.0	450	1.79	5
	24K	5900	295	2.0	900	1.79	5
KF301/55G	12K	5900	295	2.0	450	1.79	5
	24K	5900	295	2.0	900	1.79	5

Chopped Carbon Fiber

Chopped carbon fiber consists of short lengths of carbon fiber strands, offering strength and lightweight properties. It is used as a reinforcement additive in materials like plastics and resins, enhancing strength and stiffness. By blending it with a matrix material, chopped carbon fiber improves the mechanical properties of the resulting composite, making it ideal for industries like aerospace and automotive.

Code	Diameter of Fiber(μm)	Carbon Content(%)	Standard Length(mm)	Tensile Strength(GPa)	Tensile Moduou(GPa)
KF301CS	7-10	≥ 95	1-100	3.6-3.8	220-240

Carbon Fiber Woven Fabric

Carbon Fiber Woven Fabric is made from 1K, 3K, 6K, 12K, 24K carbon fibers with weave patterns like plain, twill, and satin. It finds applications in aerospace for making aircraft parts to enhance strength and reduce weight, in automotive manufacturing for vehicle structures and suspension systems to boost performance and fuel efficiency, and in sports equipment like golf club shafts and bicycle frames.

Code	Yarn	Weave	Weight(g/m ²)	W(mm)*L(m)
KF305P/1K-120	1K	Plain	120	1000*100
KF305T/1K-120	1K	Twill	120	1000*100
KF305P/3K-200	3K	Plain	200	1000*100
KF305T/3K-200	3K	Twill	200	1000*100
KF305P/3K-240	3K	Plain	240	1000*100
KF305T/3K-240	3K	Twill	240	1000*100
KF305P/6K-320	6K	Plain	320	1000*100
KF305T/6K-320	6K	Twill	320	1000*100
KF305P/6K-360	6K	Plain	360	1000*100
KF305T/6K-360	6K	Twill	360	1000*100
KF305P/12K-400	12K	Plain	400	1000*50
KF305T/12K-400	12K	Twill	400	1000*50
KF305P/12K-480	12K	Plain	480	1000*50
KF305T/12K-480	12K	Twill	480	1000*50

Carbon-Aramid Hybrid Fabric

Carbon-Aramid Hybrid Fabric merges the high strength and stiffness of carbon fiber with the impact resistance and durability of aramid, creating a material less brittle and more resilient than solely carbon fiber fabric. This makes it ideal for applications requiring both strength and toughness, such as protective gear and high-impact sports equipment, while still maintaining a lightweight profile.

Code	Weave	Weight(g/m ²)	Thickness(mm)	W(mm)*L(m)
KA305/100P-YB	Plain	100	0.11	1000*100
KA305/190P-YB	Plain	190	0.27	
KA305/190T-YB	Twill	190	0.27	
KA305/190P-BRO	Plain	190	0.27	
KA305/190T-BRO	Twill	190	0.27	
KA305/190I-YB	"I" WEAVE	190	0.28	

Carbon Fiber Unidirectional Fabric

Unidirectional carbon fiber fabric is a high-strength, lightweight material with all fibers aligned in one direction. Its exceptional load-bearing qualities in the fiber direction make it a popular choice for reinforcing structures in construction, allowing for enhanced durability without adding significant weight.

Code	Yarn	Weight(g/m ²)	Thickness(mm)	W(mm)*L(m)
KF305UD/12K-200	12K	200	0.111	500*100
KF305UD/12K-200	12K	300	0.167	1000*100
KF305UD/24K-200	24k	300	0.167	1000*100
KF305UD/12K-400	12K	400	0.2	1000*50
KF305UD/24K-400	24k	400	0.2	1000*50
KF305UD/24K-600	24k	600	0.44	500*50

Carbon Fiber Multi-Axial Fabric

Carbon fiber multi-axial fabric is a high-strength material made up of carbon fibers arranged in several directions, bonded together to provide enhanced structural integrity in various applications. It's commonly utilized in industries where lightweight and durable components are required, such as aerospace, automotive, and marine sectors.

Code	Yarn	Direction	Weight(g/m ²)	W(mm)*L(m)
KF305/CBX200	12K/25K	+45/-45	200	1270*50
KF305/CLT200	12K/25K	0/90	200	
KF305/CBX400	25K	+45/-45	400	
KF305/CLT400	25K	0/90	400	
KF305/CBX600	50K	+45/-45	600	
KF305/CLT600	50K	0/90	600	
KF305/CTX600	50K	0/+45/-45 or +45/-45/90	600	
KF305/CTX800	50K	0/+45/-45 or +45/-45/90	600	
KF305/QX380	12K	0/90/+45/-45	380	
KF305/QX800	25K/50K	0/90/+45/-45	800	

Spread Tow Carbon Fiber Fabric

Carbon fiber spread woven fabric features finely dispersed tows for a tighter, smoother weave, providing enhanced strength and reduced weight compared to normal carbon fiber woven fabric, which has a bulkier appearance and may be heavier due to more resin use. Spread woven fabric is ideal for performance-critical applications like aerospace and automotive.

Code	Density(g/m ²)	Weave	Width(mm)	Thickness(mm)	Fibers	
KF305ST/65*	65*	Plain/ Twill	25	0.07	T700-12K Tensile Strength: 4900Mpa Tensile Modulus: 230Gpa	
KF305ST/80*	80*		20	0.08		
KF305ST/88*	88*		18	0.09		
KF305ST/100*	100*		16/20	0.10		
KF305ST/160	160		10	0.16		
KF305ST/200	200		8	0.20	T700-24K Tensile Strength: 4900Mpa Tensile Modulus: 230Gpa	
KF305ST/132	132		25	0.13		
KF305ST/165	165		20	0.16		
KF305ST/183	183		18	0.18		
KF305ST/206	206		16	0.21		
KF305ST/61*	61*		Plain/ Twill	25	0.06	M30 Tensile Strength: 5490Mpa Tensile Modulus: 294Gpa
KF305ST/76*	76*			20	0.08	
KF305ST/84*	84*			18	0.08	
KF305ST/95*	95*			16	0.10	
KF305ST/152	152			10	0.15	
KF305ST/83*	83*			T800-24K Tensile Strength: 5880Mpa Tensile Modulus: 294Gpa	25	0.08
KF305ST/103	103				20	0.10
KF305ST/114	114				18	0.11
KF305ST/130	130				16	0.13
KF305ST/206	206				10	0.21
KF305ST/100*	100*	T800-12K Tensile Strength: 6000Mpa Tensile Modulus: 294Gpa	10	0.10		

Annotation: 65 80* 88* 100* 61* 76* 84* 95* 83* 100*: Ultra-thin featured products

Carbon Fiber Tape

Carbon fiber tape is a strong yet lightweight reinforcement material ideally suited for structural enhancement in aerospace, automotive, and marine sectors. Non-adhesive and easy to handle, it bonds well with resins, offering heat resistance and durability, with uses extending to sports equipment and decorative applications.

Code	Yarn	Thickness(mm)	Width(mm)	Weight(g/m ²)	L(m)
KF306/240	3K Carbon fiber	0.32	15-180	240	100
KF306/280	3K Carbon fiber	0.35	15-180	280	
KF306/320	3K Carbon fiber	0.4	15-180	320	
KF306UD/200	3K UD Carbon fiber	0.25	30-130	200	

Carbon Fiber Sleeve

Carbon fiber braided sleeves, lightweight and strong with tensile strengths over 3500 MPa, provide protection for wires and cables against high temperatures and environmental damage in automotive, aerospace, and other industries. They are flexible, fireproof, and resistant to extremes, with diameters ranging from 8mm to 80mm, and can endure up to 650°C .

Code	Weave	Dry weight(g/m ²)	Resin Content(%)	L(m)
KF307/08-12	8-12	10	0.8-0.9	50-100
KF307/20-40	20-40	20	0.8-0.9	
KF307/15-25	15-25	20	1.3-1.5	
KF307/30-50	30-50	40	1.3-1.5	
KF307/20-35	20-35	40	1.8-1.9	
KF307/40-70	40-70	80	1.8-1.9	
KF307/20-30	20-30	18	1.3-1.5	
KF307/50-80	50-80	29	0.8-0.9	

Carbon Fiber Sheet

Carbon Fiber Sheets are high-strength, lightweight panels with a sophisticated glossy or matte finish. Ideal for designing and fabricating durable structures and parts, they are extensively utilized in aerospace, unmanned aerial vehicles, RC models, sports equipment, and high-end electronics. These sheets are perfect for applications where strength, weight, and aesthetics are critical.

Code	Weave	Surface	Thickness(mm)	Type
KF309/400-500	Plain/ Twill	Glossy/Matte	0.5-10	Content of carbon: 100%
KF309/500-600				
KF309/500-1000				
KF309/1000-1000				
KF309/1000-1600				
KF309/1200-1600				

Carbon Fiber Veil

The Carbon Fiber Veil is a non-woven material made of randomly oriented carbon fibers, used to reinforce composites, improve surface finish, and prevent cracking. It also offers electrical conductivity and resistance to fire, corrosion, and fatigue, making it versatile for high-performance applications.

Code	Area Weight (g/m ²)	Surface Resistance(Ω)	Binder Content(%)	Moisture Content(%)	Tensile Strength (N/50mm)	Thickness (mm)	L(m)
KF310/005	5	/	10±2	≤ 0.3	/	0.05±0.01	500
KF310/006	6	/			≥ 5	0.06±0.01	500
KF310/008	8	/			≥ 7	0.08±0.01	200
KF310/010	10	≤ 15			≥ 11	0.09±0.01	200
KF310/015	15	≤ 8			≥ 16	0.15±0.02	300
KF310/020	30	≤ 6			≥ 21	0.20±0.03	300
KF310/030	50	≤ 4			≥ 31	0.30±0.03	200
KF310/050	60	≤ 3			≥ 40	0.50±0.04	160

Carbon Fiber Strip

Carbon fiber Strip combine high-strength carbon fibers with special resin to create lightweight, corrosion-resistant material with excellent anti-fatigue properties. Ideal for concrete structure repair and earthquake reinforcement, their easy handling and ability to overlap make them a practical choice for durable construction upgrades.

Type	Code	Thickness (mm)	Width (mm)	Length (m)	Tensile Strength (MPa)	Elastic Modulus (GPa)	Elongation (%)
HS Series	KF309HS/1.2-100	1.2	100	50/100	≥ 2800	≥ 160	≥ 1.6
	KF309HS/1.4-50	1.4	50/100				
	KF309HS/1.4-100						
	KF309HS/2.0-50	2.0	50/100				
	KF309HS/2.0-100						
KF309HS/3.0-50	3.0	50					
HM Series	KF309HM/1.2-100	1.2	100	50/100	≥ 2800	≥ 200	≥ 1.3
	KF309HM/1.4-50	1.4	50/100				
	KF309HM/1.4-100						
	KF309HM/2.0-50	2.0	50/100				
	KF309HM/2.0-100						
KF309HM/3.0-50	3.0	50					

Customized Production Available

Carbon Fiber Tube

Carbon fiber tubes offer high strength and lightweight advantages over traditional materials like steel or aluminum. They are commonly used in industrial machinery, sports equipment, aviation models, and recreational items such as tent poles, delivering enhanced performance and durability across a wide range of applications.

Code	Length(mm)	Surface	Weave
KF312/3K-8x10	10-2400	Glossy/Matte	Plain/ Twill/ Uni-direction
KF312/3K-10x14			
KF312/3K-12x14			
KF312/3K-14x16			
KF312/3K-16x18			
KF312/3K-18x20			
KF312/3K-20x24			
KF312/3K-22x25			
KF312/3K-24x26			
KF312/3K-26x28			
KF312/3K-28x30			
KF312/3K-31x35			
KF312/3K-34x38			
KF312/3K-52x56			

Carbon Fiber Fabric Prepregs

Carbon Fiber Fabric Prepreg, acclaimed for its advanced, lightweight, and high-strength qualities, is a top-tier reinforcement widely employed in sectors such as aerospace, transportation, and sports. It is essential in producing a range of products from aircraft and engines to sports accessories.

Code	Weave	Dry weight(g/m ²)	Resin Content(%)	W(mm)*L(m)
CP1120	Plain	120	40	1000*100
CT1120	Twill	120		1000*100
CP3200	Plain	200		1000*100
CT3200	Twill	200		1000*100
CS3240	Satin	240		1000*100
CP6320	Plain	320		1000*100
CT6320	Twill	320		1000*100
CS6400	Satin	400		1000*50
CP12400	Plain	400		1000*50
CT12480	Twill	480		1000*50


Carbon Fiber Unidirectional Prepregs


Carbon Fiber Unidirectional Prepreg is a state-of-the-art reinforcement material renowned for its lightweight properties and exceptional strength. Its versatility makes it suitable for a multitude of applications ranging from aerospace components like fuselages and rocket shells to sports gear including fishing rods and baseball bats, as well as industrial uses in engine parts and structural reinforcements.


Code	Dry Weight(g/m ²)	Resin Content(%)	Total Weight(g/m ²)	W(mm)*L(m)
USN03000	30	55	76	1000*100
USN05000	50	45	91	
USN07500	75	38	121	
USN10000	100	33	150	
USN12500	125	33	187	
USN15000	150	33	224	
USN17500	175	33	261	
USN20000	200	33	298	
USN22500	225	33	337	
USN25000	250	33	374	





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