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CARBON FIBER

碳纤维 高强度、高模量的新型纤维材料 HIGH STRENGTH, HIGH MODULUS NEW FIBER MATERIAL

碳纤维是一种以聚丙烯腈为原料，经预氧化、碳化、石墨化工艺而制得的含碳量大于95%的特种纤维。比重不到钢的1/4，比强度是铁的20倍，不仅具有碳材料的固有特性，又兼备纺织纤维的柔软可加工性，具有耐腐蚀、耐疲劳、高强度、高模量等特性。

Carbon fiber is a special fiber with carbon content above 95% which based as PAN produced through pre-oxidation, carbonization and graphitization. Its density is less than 1/4 of steel while strength is 20 times if steel. It not only has characteristics of carbon material but also has workability, flexibility of textile fibers.



碳纤维双向编织布

CARBON FIBER BI-DIRECTION FABRIC

以1K、3K、6K、12K、24K等为原材料进行平纹、斜纹、缎纹编织。产品主要应用于航空航天、汽摩配件、运动器材、建筑加固及各种装饰件等。

It is weaved by 1K, 3K, 6K, 12K, 24K carbon fiber, weave pattern including plain, twill, satin. Its application mainly including aerospace, auto parts, sports equipment, building reinforcements, decorations...



其他延伸产品 DERIVATIVE PRODUCTS

金银丝布、提花布、与其他高性能纤维材料（芳纶纤维、玻璃纤维等）混编布、单向布、编织带、套管、短切、制品、3D立体织物等。

Carbon glitter fabric.,Carbon Jacquard fabric,Hybrid fabric---with other high performance fibers (aramid, UHMWPE, basalt, fiberglass...),Unidirectional fabric,Textile tape,Textile sleeve/braid,Chopped fiber,3D textile.



H3K-CT200



±45° 200



H3K-CJ220

型号 Type	纤维种类 Yarn		织物结构 Weave	经纬密度 Fiber count(10mm)		幅宽 Width(mm)	厚度 Thickness(mm)	重量 Weight(g/m ²)
	经向 Warp	纬向 Weft		经纱 Warp	纬纱 Weft			
H1K-CP120	1K	1K	平纹 (Plain)	9	9	100-3000	0.19	120
H1K-CT120	1K	1K	斜纹 (Twill)	9	9	100-3000	0.19	120
H3K-CP200	3K	3K	平纹 (Plain)	5	5	100-3000	0.26	200
H3K-CT200	3K	3K	斜纹 (Twill)	5	5	100-3000	0.26	200
H3K-CP240	3K	3K	平纹 (Plain)	6	6	100-3000	0.32	240
H3K-CT240	3K	3K	斜纹 (Twill)	6	6	100-3000	0.32	240
H6K-CP320	6K	6K	平纹 (Plain)	4	4	100-3000	0.42	320
H6K-CT320	6K	6K	斜纹 (Twill)	4	4	100-3000	0.42	320
H6K-CP360	6K	6K	平纹 (Plain)	4.5	4.5	100-3000	0.48	360
H6K-CT360	6K	6K	斜纹 (Twill)	4.5	4.5	100-3000	0.48	360
H12K-CP400	12K	12K	平纹 (Plain)	2.5	2.5	100-3000	0.53	400
H12K-CT400	12K	12K	斜纹 (Twill)	2.5	2.5	100-3000	0.53	400
H12K-CP480	12K	12K	平纹 (Plain)	3	3	100-3000	0.64	480
H12K-CT480	12K	12K	斜纹 (Twill)	3	3	100-3000	0.64	480

ARAMID FIBER

芳纶纤维 新型超高强度、高模量合成纤维 A NEW SYNTHETIC FIBER WITH HIGH STRENGTH & MODULUS

芳纶全称“聚对苯二甲酰对苯二胺”，是一种新型超高强度、高模量的合成纤维。重量仅为钢的1/5，强度是钢的5-6倍，模量为钢的2-3倍，韧性是钢的2倍，手感柔软，可纺性好，具有良好的绝缘性、抗老化性和阻燃耐热性等。

The full name of aramid is called PPTA. It is a new synthetic fiber with high strength & modulus. Its weight is 1/5 of steel, strength is 5-6 times of it, modulus is 2-3 times of steel, tenacity is 2 times of it. It has good performance of insulation, heat resistance, aging resistance, flame retardant and spinnability.



芳纶纤维编织布

ARAMID FIBER FABRIC

以对位芳纶为主，以200D、400D、600D、800D、1000D、1500D、3000D等为原料进行平纹、斜纹、缎纹编织。产品主要应用于航空航天、防弹衣、机电、建筑、汽车、体育用品等。

It is weaved mainly by para-aramid fiber 200D 400D 600D 800D 1000D 1500D 3000D. Weave pattern including plain, twill, satin. Its application mainly including aerospace, bulletproof vest, electromechanic equipment, building reinforcement, auto and sports equipment.



其他延伸产品

DERIVATIVE PRODUCTS

提花布、与其他高性能纤维材料（碳纤维、玻璃纤维等）混编布、单向布、编织带、套管、短切、制品、3D立体织物等。

Aramid Jacquard fabric, Hybrid fabric---with other high performance fibers (carbon, UHMWPE, basalt, fiberglass...), Unidirectional fabric, Textile tape, Textile sleeve/braid, Chopped fiber, 3D textile.



H1500D-AT200(黑)



H1000D-AJ200



H1500D-AT200(红)

型号 Type	纤维种类 Yarn		织物结构 Weave	经纬密度 Fiber count(10mm)		幅宽 Width(mm)	厚度 Thickness(mm)	重量 Weight(g/m2)
	经向 Warp	纬向 Weft		经纱 Warp	纬纱 Weft			
H200D-AP50	200D	200D	平纹 (Plain)	13.5	13.5	100-3000	0.08	50
H400D-AP80	400D	400D	平纹 (Plain)	12	12	100-3000	0.14	80
H600D-AP100	600D	600D	平纹 (Plain)	8	8	100-3000	0.15	100
H800D-AP115	800D	800D	平纹 (Plain)	7	7	100-3000	0.16	115
H1000D-AP140	1000D	1000D	平纹 (Plain)	6	6	100-3000	0.22	140
H1000D-AP160	1000D	1000D	平纹 (Plain)	7	7	100-3000	0.24	160
H1000D-AT160	1000D	1000D	斜纹 (Twill)	7	7	100-3000	0.24	160
H1000D-AP200	1000D	1000D	平纹 (Plain)	9	9	100-3000	0.26	200
H1000D-AT200	1000D	1000D	斜纹 (Twill)	9	9	100-3000	0.26	200
H1500D-AP170	1500D	1500D	平纹 (Plain)	5	5	100-3000	0.23	170
H1500D-AP200	1500D	1500D	平纹 (Plain)	6	6	100-3000	0.26	200
H1500D-AT220	1500D	1500D	斜纹 (Twill)	6.5	6.5	100-3000	0.28	220
H3000D-AP300	3000D	3000D	平纹 (Plain)	4.5	4.5	100-3000	0.40	300
H3000D-AP450	3000D	3000D	平纹 (Plain)	6.5	6.5	100-3000	0.70	450

BASALT FIBER

玄武岩纤维 新型无机环保绿色高性能纤维材料 STYLE INORGANIC ENVIRONMENTAL FRIENDLY HIGH PERFORMANCE FIBER.

玄武岩纤维，经由玄武岩石料高温拉制而成，性能介于高强度S玻纤和无碱E玻纤之间，是一种绿色环保材料。连续纤维不仅稳定性好，而且还具有电绝缘性、抗腐蚀性、抗燃烧性、耐高温性、抗氧化性等优异性能，性价比好。

Basalt fiber is made of basalt by pultrusion under high temperature. It is an environmental friendly high performance fiber which performance is between S-fiber glass and E-fiber glass. Its continuous fibers has not only good stability, but also has electrical insulation, corrosion resistance, burn resistance, high temperature resistance, oxidation resistance and excellent cost performance.



玄武岩纤维编织布

BASALT FIBER FABRIC

以33tex、80tex、100tex、300tex、800tex等为原料，进行平纹、斜纹、缎纹编织。产品主要应用于纤维增强复合材料、摩擦材料、造船材料、隔热材料、汽车行业、高温过滤织物等。

It is weaved by 33tex,80tex,100tex,300tex,800tex...basalt fiber as material,weave pattern including plain,twill,satin.Its application mainly including fiber-reinforced composite materials, friction materials, shipbuilding materials, insulation materials, automotive industry, high temperature filtration fabrics, etc.



其他延伸产品

DERIVATIVE PRODUCTS

与其他高性能纤维材料（碳纤维、玻璃纤维等）混编布、单向布、编织带、制品等。

Hybrid fabric---with other high performance fibers (carbon,aramid,UHMWPE, fiberglass...), Unidirectional fabric, Textile tape, Textile sleeve/braid, Chopped fiber, 3D textile.

型号 Type	纤维种类 Yarn		织物结构 Weave	经纬密度 Fiber count(10mm)		幅宽 Width(mm)	厚度 Thickness(mm)	重量 Weight(g/m ²)
	经向 Warp	纬向 Weft		经纱 Warp	纬纱 Weft			
H-BP100	35tex	35tex	平纹 (Plain)	15	14	100-3000	0.10	100
H-BP200	100tex	100tex	平纹 (Plain)	10	10	100-3000	0.23	200
H-BP300	300tex	300tex	平纹 (Plain)	5	5	100-3000	0.30	300
H-BT300	300tex	300tex	斜纹 (Twill)	5	5	100-3000	0.30	300
H-BP320	300tex	300tex	平纹 (Plain)	6	5.5	100-3000	0.32	320
H-BP430	300tex	300tex	平纹 (Plain)	7	7.5	100-3000	0.37	430
H-BP640	800tex	800tex	平纹 (Plain)	5	3	100-3000	0.58	640
H-BT900	750tex	750tex	斜纹 (Twill)	6	6	100-3000	0.76	900



UHMWPE FIBER

聚乙烯纤维 目前世界上比强度、比模量最高的纤维

THE FIBER WITH THE BEST SPECIFIC STRENGTH, SPECIFIC MODULUS AMONG OTHERS IN THE WORLD UP TO THE PRESENT.

超高分子量聚乙烯纤维，又称高强高模聚乙烯纤维，是分子量在100万~500万的聚乙烯所纺出的纤维，比强度是同等截面钢丝的十多倍，比模量仅次于特级碳纤维。具有高强度、高模量、低断裂伸长、抗冲击、抗切割、抗紫外线辐射、耐化学腐蚀、耐磨性等特性。

Ultra-high molecular weight polyethylene fiber, also known as high strength and high modulus polyethylene fiber. It is made by molecular weight of 1,000,000 ~ 5,000,000 polyethylene which its specific strength is ten times more than steel and specific modulus is only less than super carbon fiber. It has good performance of high strength, high modulus, low elongation at break, impact resistance, cutting resistance, anti-ultraviolet radiation, chemical resistance, abrasion resistance and other characteristics.



聚乙烯纤维布

UHMWPE FIBER FABRIC

以200D、400D、600D、800D、1000D、1500D、3000D等为原材料进行平纹、斜纹编织，产品主要应用于防弹衣、防弹头盔、轻质装甲、体育器材、绳索、缆绳、船帆、滤材等。

It is made by 200D,400D,600D,800D,1000D,1500D,3000D UHMWPE fiber as material with weave style plain,twill and satin. Its application mainly including body armor, bulletproof helmet, light armor, sports equipment, ropes, cables, sails, filter, etc.



其他延伸产品

DERIVATIVE PRODUCTS

与其他高性能纤维材料（芳纶等）混编布等。

Hybrid fabric---with other high performance fibers (carbon,aramid,basalt,fiberglass...), Unidirectional fabric, Textile tape, Textile sleeve/braid, 3D textile

型号 Type	纤维种类 Yarn		织物结构 Weave	经纬密度 Fiber count)10(mm)		幅宽 Width(mm)	厚度 Thickness(mm)	重量 Weight(g/m2)
	经向 Warp	纬向 Weft		经纱 Warp	纬纱 Weft			
H200D-PE100	200D	200D	平纹 (Plan)	22	17.5	100-3000	0.21	100
H400D-PE140	400D	400D	平纹 (Plan)	14	14	100-3000	0.25	140
H600D-PE200	600D	600D	平纹 (Plan)	15.5	12	100-3000	0.42	200
H800D-PE170	800D	800D	平纹 (Plan)	9.5	8.5	100-3000	0.39	170
H1000D-PE240	1000D	1000D	平纹 (Plan)	10	9	100-3000	0.48	240
H1500D-PE345	1500D	1500D	平纹 (Plan)	10	7.5	100-3000	0.72	345
H3000D-PE410	3000D	3000D	平纹 (Plan)	3	3	100-3000	0.88	410



HYBRID FABRIC

混编布

玻碳混编布

GLASS-CARBON HYBRID FABRIC

型号 Type	纤维种类 Yarn		织物结构 Weave	经纬密度 Fiber count(10mm)		幅宽 Width(mm)	厚度 Thickness(mm)	重量 Weight(g/m ²)
	经向 Warp	纬向 Weft		经纱 Warp	纬纱 Weft			
H1K-CGP125	1K	30tex	平纹 (Plain)	9	9	100-3000	0.15	125
H3K-CGP270	3K	350tex	平纹 (Plain)	5	5	100-3000	0.37	270
H6K-CGP350	6K	600tex	平纹 (Plain)	4	4	100-3000	0.45	350
H12K-CGP750	12K	1200tex	平纹 (Plain)	4	3.5	100-3000	0.80	750



H1K-CGP125



H3K-CGP270



H3K-CGT280(W)



H3K-CGT280



H6K-CGP350



H12K-CGP600



H12K-CGT1200



H24K-CGP900

芳碳混编布

CARBON-ARAMID HYBRID FABRIC

型号 Type	纤维种类 Yarn		织物结构 Weave	经纬密度 Fiber count(10mm)		幅宽 Width(mm)	厚度 Thickness(mm)	重量 Weight(g/m ²)
	经向 Warp	纬向 Weft		经纱 Warp	纬纱 Weft			
H1K-CAP100	1K	400D	平纹 (Plain)	9	9	100-3000	0.11	100
H3K-CAP190	3K	1500D	平纹 (Plain)	5	5	100-3000	0.27	190
H3K-CAT190	3K	1500D	斜纹 (Twill)	5	5	100-3000	0.27	190
H3K-CAP190 (蓝、红、桔)	3K	1500D	平纹 (Plain)	5	5	100-3000	0.27	190
H3K-CAT190 (蓝、红、桔)	3K	1500D	斜纹 (Twill)	5	5	100-3000	0.27	190
H3K-CAJ220 (蓝、红、桔、黄)	3K	1500D	提花 (Jacquard)	5	5.5	100-3000	0.28	220



H3K-CAT190(W,桔)



H3K-CAP190(桔)



H3K-CAT190(红)



H3K-CMP240



H3K-CAP190



H3K-CAP190(I)



H3K-CAGP220



H3K-CAJ220(红)



H3K-CAP190(田)



H3K-CMP230



H3K-CAJ230(蓝)



H3K-CAP190(蓝)

BUILDING

REINFORCEMENT MATERIAL

建筑加固材料

单向碳纤维板

UNIDIRECTIONAL PULTRUSION CARBON FIBER PLATE

将碳纤维丝浸渍树脂后在模具内固化并连续拉挤成型，具有拉伸强度高、韧性好、重量轻、耐腐蚀性、抗震性、抗冲击性等良好性能，主要应用于混凝土梁抗弯、抗剪加固、混凝土楼板、桥板加固补强等特殊结构的特殊场合。

It is made by carbon fiber through mold with resin which has high tensile strength, good toughness, light weight, corrosion resistance, good performance, shock resistance, impact resistance, etc. It is mainly used in special occasions such as concrete beam flexural, shear reinforcement, concrete floor and slab reinforcement.



型号 Type	纤维等级 Grade	抗拉强度 Tensile Strength (MPa)	抗拉模量 Tensile Modulus (GPa)	断裂伸长 Elongation (%)	厚度 Thickness (mm)
单向碳纤维板	高强Ⅰ级	≥2400	≥1.6×10 ⁵	≥1.7	1.4
	高强Ⅱ级	≥2000	≥1.4×10 ⁵	≥1.5	1.4

玄武岩纤维单向编织布

UNIDIRECTIONAL BASALT FIBER FABRIC

多以800tex为原材料进行编织，常规型号有300G、400G。具有化学性稳定、耐高温、抗紫外线、环保无污染等优势，性价比较高，多用于土木工程、建筑加固、补强修复、防火工程等方面。

It mainly made by 800tex basalt fiber as material with ordinary weight 300gsm and 400gsm. It has good performance of chemical stability, high temperature resistance, UV resistance, environmental freindly and good cost performance. Its application mainly including civil.



型号 Type	纤维等级 Grade	抗拉强度 Tensile Strength (MPa)	抗拉模量 Tensile Modulus (GPa)	断裂伸长 Elongation (%)	厚度 Thickness (mm)
H-BF300	≥2000	≥90	≥2.0	0.115	300
H-BF400	≥2000	≥90	≥2.0	0.145	400

碳纤维单向编织布

UNIDIRECTIONAL CARBON FIBER FABRIC

多以12K为原材料进行编织，常规型号有200G、300G。具有高强度、高模量、自重轻、易施工、抗高温、抗酸碱腐蚀、不受结构外形限制等优势，多用于裂缝修补封护、建筑加固补强、抗震等方面。

It mainly made by 12K carbon fiber with ordinary weight 200gsm and 300gsm. It has good performance of high strength, high modulus, light weight, easy construction, high temperature resistance, anti-acid corrosion, and other advantages. It's used mainly in crack repair, building reinforcement, reinforcement against earthquake, etc.



型号 Type	纤维等级 Grade	抗拉强度 Tensile Strength (MPa)	抗拉模量 Tensile Modulus (GPa)	断裂伸长 Elongation (%)	厚度 Thickness (mm)	重量 Weight (g/m ²)
H12K-CF200	高强Ⅰ级	≥3400	≥240	≥1.7	0.111	200
	高强Ⅱ级	≥3000	≥210	≥1.5	0.111	200
H12K-CF300	高强Ⅰ级	≥3400	≥240	≥1.7	0.167	300
	高强Ⅱ级	≥3000	≥210	≥1.5	0.167	300

芳纶纤维单向编织布

UNIDIRECTIONAL ARAMID FIBER FABRIC

多以3000D为原材料进行编织，常规型号有280G、415G。具有高强度、高模量、高延性、耐腐蚀、抗震性、抗疲劳、不导电等优势，多用于地铁、隧道、电气化铁路等对绝缘性要求高的建筑加固补强；海港码头等的加固补强；对冲击性要求很严的结构加固补强等。

It mainly made by 3000D aramid fiber as material with ordinary weight 280gsm and 415gsm. It has good performance of high strength, high modulus, high ductility, corrosion resistance, shock resistance, anti-fatigue, non-conductive and other advantages. Its application mainly including high demand for building insulation reinforcement such as subways, tunnels, railway electrification and structural reinforcement with very strict requirements on impact such as harbor.



型号 Type	纤维等级 Grade	抗拉强度 Tensile Strength (MPa)	抗拉模量 Tensile Modulus (GPa)	断裂伸长 Elongation (%)	厚度 Thickness (mm)
H3000D-AF280	≥2000	≥110	≥2.0	0.193	280
H3000D-AF350	≥2000	≥110	≥2.0	0.243	350
H3000D-AF415	≥2000	≥110	≥2.0	0.2888	415

WOVEN TAPE

AND SLEEVE

编织带及套管

编织带

WOVEN TAPE



型号 Type	纤维种类 Yarn	厚度 Thickness (mm)	幅宽 Width (mm)	重量 Weight
H3K--WT240	3K Carbon fiber	0.32	15-180	240 g/m ²
H3K-WT280	3K Carbon fiber	0.35	15-180	280 g/m ²
H3K-WT320	3K Carbon fiber	0.4	15-180	320 g/m ²
H3K-WTF200	3K UD Carbon fiber	0.25	30-130	200 g/m ²
H1500D-WT18/20	1500D Kevlar fiber	0.7	18	20g/m
H1500D-WT25/24	1500D Kevlar fiber	0.7	25	24 g/m
HB-WT75	Basalt fiber	1.4	25-100	75 g/m
H3000D-WTF100/35	3000D UD Kevlar fiber	0.45	100	35 g/m



型号 Type	纤维种类 Yarn	拉伸直径 stretch diameter (mm)	重量 Weight
HCF-10	3K Carbon fiber	8-12	10
HCF-13	3K Carbon fiber	13-18	13
HCF-15	3K Carbon fiber	19-22	15
HCF-20	3K Carbon fiber	20-40	20
HCF-24	3K Carbon fiber	40-50	24
HCF-29	3K Carbon fiber	50-60	29
HCF-20	6K Carbon fiber	15-25	20
HCF-26	6K Carbon fiber	18-30	26
HCF-29	6K Carbon fiber	19-35	29
HCF-39	6K Carbon fiber	30-50	39
HCF-48	6K Carbon fiber	50-65	48
HCF-58	6K Carbon fiber	60-80	58
HCF-39	12K Carbon fiber	20-35	39
HCF-52	12K Carbon fiber	30-40	52
HCF-58	12K Carbon fiber	35-50	58
HCF-77	12K Carbon fiber	40-70	77
HCF-96	12K Carbon fiber	60-100	96
HCF-116	12K Carbon fiber	100-130	116
HCF-235	24K Carbon fiber	64-127	235
HAF-9	1500D Kevlar fiber	8-12	9
HAF-18	1500D Kevlar fiber	20-40	18
HAF-49	3000D Kevlar fiber	40-70	49

PREPREG FABRIC

预浸布

主要产品包括：单向碳纤维预浸布（24T、30T、36T、40T）、碳纤维编织预浸布（1K、3K、6k、12K）、各类混编预浸布等。单向纤维重量可从30g/m²到250g/m²，树脂含量均匀度控制在0.5%以内，纤维重量与树脂含量可按照客户要求要求进行生产。

The main products include: unidirectional carbon fiber prepreg (24T, 30T, 36T, 40T), and carbon fiber woven prepreg (1K, 3K, 6k, 12K), all kinds of hybrid prepreg and so on. Unidirectional fabric weight is from 30g / m² to 250g / m², the resin content uniformity controlled within 0.5%. Weight of the fiber and the resin content can be produced according to customer requirements.



单向碳纤维预浸料

UNIDIRECTIONAL CARBON FIBER PREPREG FABRIC

型号 Type	纤维重量 Dry Weight (g/m ²)	树脂含量 Resin Content (%)	预浸料总重量 Total Weight (g/m ²)	厚度 Thickness (mm)	幅宽 Width (mm)
H-USN03000	30	55	76	0.03	1000
H-USN05000	50	45	91	0.06	1000
H-USN07500	75	38	121	0.08	1000
H-USN10000	100	33	150	0.10	1000
H-USN12500	125	33	187	0.13	1000
H-USN15000	150	33	224	0.15	1000
H-USN17500	175	33	261	0.18	1000
H-USN20000	200	33	298	0.20	1000
H-USN22500	225	33	337	0.23	1000
H-USN25000	250	33	374	0.25	1000

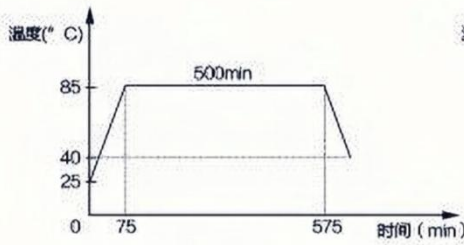
碳纤维编织预浸布

CARBON FIBER PREPREG FABRIC

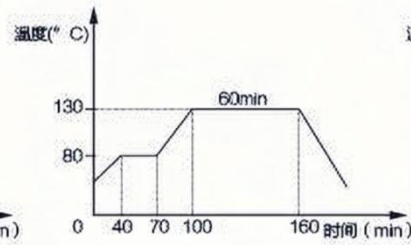
预浸料贮存期

在22℃（常温）条件下，贮存期为1个月；
在0℃条件下，贮存期为3个月；
在-18℃条件下，贮存期为6个月。

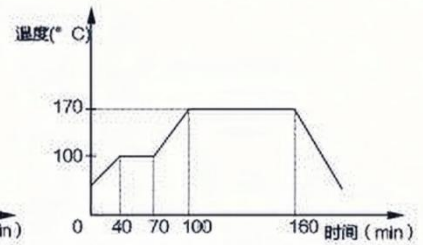
Prepreg storage period
1 month at 22℃;
3 months at 0℃;
6 months at -18℃



预浸料固化曲线图



环氧树脂预浸料（经编织物85℃）固化曲线图



环氧树脂预浸料（130℃）固化曲线图

型号 Type	纤维种类 Yarn		编织方式 Weave	纤维重量 Dry weight (g/m ²)	树脂含量 Resin Content (%)	预浸料总重量 Total Weight (g/m ²)	厚度 Thickness (mm)	幅宽 Width (mm)
	经纱 Warp	纬纱 Weft						
H-CP1120	1K	1K	平纹 (Plan)	120	40	205	0.16	1000
H-CT1120	1K	1K	斜纹 (Twill)	120	40	205	0.16	1000
H-CP3200	3K	3K	平纹 (Plan)	200	40	330	0.28	1000
H-CT3200	3K	3K	斜纹 (Twill)	200	40	330	0.28	1000
H-CS3240	3K	3K	缎纹 (satin)	240	40	405	0.30	1000
H-CP6320	6K	6K	平纹 (Plan)	320	40	530	0.40	1000
H-CT6320	6K	6K	斜纹 (Twill)	320	40	530	0.40	1000
H-CS6400	6K	6K	缎纹 (satin)	400	40	665	0.40	1000
H-CP12400	12K	12K	平纹 (Plan)	400	40	670	0.50	1000
H-CT12480	12K	12K	斜纹 (Twill)	480	40	800	0.55	1000

3D FABRIC

PREFORMAND COMPOSITE MATERIALS

3D立体织物预制体及其复合材料

立体织物是采用机织、编织、针刺或缝合等技术使纤维在立体空间内相互交错实现交织形成的整体织物，具有纤维取向可设计，整体连续分布等特点。用其制成的复合材料具备优良的结构性能和力学性能，使用特定原材料还可实现优异的抗烧蚀、耐腐蚀和高透波等功能，在国防军工、航空航天及医疗卫生等领域具有广阔的应用前景。

Three-dimensional fabric is using woven, knitted, or needle stitching techniques to achieve overall intertwined fibers formed in the three-dimensional space which features fiber orientation can be designed, fiber continuous and homogeneous fiber distribution. The composite material it made has excellent construction and mechanical properties. It can achieve excellent anti-erosion, corrosion and high wave permeability if using special raw materials so that it has broad application prospects in the defense industry, aerospace, and medical and health fields.



产品技术特点

TECHNICAL FEATURES

1. 采用纤维立体空间连续交织新型纺织技术，具有完全整体、连续多向的纤维束网络；

Products using special three-dimensional space of continuous fibers interwoven new textile technology, with complete, continuous multi-directional fiber networks.

2. 可以实现具有复杂型面复合材料预制体的整体成型

The overall shape can be achieved with a complex surface composite preform

3. 制成的复合材料具有高比强度、高比模量、抗烧蚀、高透波和抗冲击等优良性能；

Composite materials it made has high strength, high modulus, anti-erosion, high waves permeability and anti-impact performance.

4. 可采用碳纤维、陶瓷纤维、石英纤维、玻璃纤维、芳纶纤维等各种原材料成型。

Can be made by carbon fibers, ceramic fibers, quartz fibers, glass fibers, aramid fibers, and other fibers.



立体织物预制体
3D textile preformed unit



立体织物编织机
3D textile machine

立体织物有多种成型结构方式，不同的结构具有不同的性能，目前应用较多的有绞联锁结构、三维多向结构、缝合针刺结构和中空层联结构。

Three-dimensional fabric has a variety of molding structure, different structure has different properties, the current application more stranded with interlocking structure, three-dimensional multi-directional structure, the structure of the suture needle and linking structure with hollow inside.



缝合针刺结构织物
Suture needle structure



绞联锁结构织物
Interlocking structure textiles



三维多向结构
3D multi-directional structure



中空层联结构织物
Linking structure with hollow inside.