High Temperature Textiles and Ropes

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FIBERGLASS PRODUCTS

Texturized Fiberglass Fabrics

Textuirzed fiberglass fabrics are made of fiberglass bulk yarn which is texturized or volumized from fiberglass roving yarn by high pressure air. It has good properties such as high temperature resistance (up to 550°C/1022°F), low thermal conductivity coefficient (<0.035Keal/M.H.°C), anti-corrosion, high dust-accommodation and high filterability, moreover it has no harm to human body and is a good replacement for asbestos products. For some items of us, the yarn can be optionally reinforced with S.S wire to enhance the tensile strength.

Application:

--All types of thermal insulation and heat protection.

--Expansion joints, safety defender, piping and heat insulation in nautical equipment.

--Basic cloth for finish treatment in order to meet special applications.

Ref. No.	Weave	Thread Count (Ends/cm)		Yarn (Tex)		Weight (g/m^2)	Thickness (mm)	Tensile Strength (N/5cm)	
		Warp	Fill	Warp	Fill			Warp	Fill
FG105T	Plain	8	4.3	ET11 480tex	ET11 480tex	600	0.8	2000	1200
		8	3.8	ET11 480tex	ET11 1000tex	800	1	3000	2500
		6.2	3	ET11 1000tex	ET11 1000tex	1000	1.5	3500	3000
		5.8	2.7	ET11 1700tex	ET11 1200tex	1300	2	4000	3500
		4.4	2	ET11 2700tex	ET11 2400tex	1800	3	4500	4000
84215		8	6	ET6 225tex	ET6 225tex	288	0.30	800	600
2025		8	5.6	ET9 430tex	ET9 430tex	600	0.75	2250	1216
2115		6	5	ET9 580tex	ET9 580tex	645	0.8	2250	1216
M24		6	4	ET9 430tex	ET9 1290tex	815	1	3000	2500
M30		6.2	4.1	ET9 960tex	ET9 960tex	1050	1.5	3500	3000
M30S		6.2	4.1	ET9 860tex	ET9 1290tex	1150	1.5	3600	3100
M34		6.5	4	ET9 980tex	ET9 1290tex	1150	1.6	3400	2800
M60		6	3	ET9 1800tex	ET9 3600tex	2050	3	4000	3000
2626	3x1 twill	10	6	ET9 580tex	ET9 580tex	950	1.2	4500	2200

Remark: M30S with stainless steel wire reinforced in warp and weft direction of the yarns.

E-Glass Filament Fabrics

E-Glass filament fabrics are made of continuous fiberglass yarns, therefore it can be produced in many different kinds of weaving structure, and the surface of these fabrics appears very smooth and shiny. This kind of fabrics have the same properties of texturized fiberglass fabrics, it is an ideal fabric for all kinds of finish treatments. For some items of us, the yarn can be optionally reinforced with S.S wire to enhance the tensile strength.

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Application:

--All types of thermal insulation and protection.

--Basic cloth for all kinds of finish treatments.

Ref. No.	Weave	Thread Count		Yarn tex		Weight (g/m^2)	Thickness (mm)	Tensile Strength	
		Warp	Fill	Warp	Fill			Warp(N/5cm)	Fill(N/5cm)
3788	12HS	18	10	EC9 580 1X0	EC9 650 1X0	1700	1.7	5500	5000
3786	12HS	19	10.5	EC9 144 1X3	EC9 144 1X3	1300	1.2	5000	4500
3784	8HS	18.5	10.5	EC9 72 1X4	EC9 72 1X4	880	0.7	4800	4000
666	8HS	16	15	EC9 68 1X3	EC9 68 1X3	660	0.6	3800	3500
666S	8HS	16	15	EC9 68 1X3	EC9 68 1X3	760	0.65	7500	6000
3732	Crowfoot	20	11	EC9 134 1X0	EC9 134 1X0	430	0.4	3700	1680
FW600	Modified Plain	14.5	14.5	EC9 100 1X2	EC9 200 1X0	600	0.6	3700	3300
FW800		14.5	13.5	EC9 144 1X2	EC9 300 1X0	800	0.75	4200	3600
7628	plain	18	12	EC9 68 1X0	EC9 68 1X0	200	0.2	1600	1200
2523		12	8	EC9 100 1X2	EC9 100 1X2	400	0.4	3200	1600

Remark: 666S with stainless steel wire reinforced in warp and weft direction of the yarns.

Finish Treatments for Fiberglass Fabrics

In order to meet special application of the fabrics, we offer many kinds of finish treatments which will change or improve the normal properties of basic fiberglass fabrics.

Finish treatments	Temp	Purpose of treatments	Application
Aluminum facing	550°C/1022°F	Heat reflection, abrasion proof	Heat protection cushions, motor vehicle industry, protection for piping outside
Dying and coloring	550°C/1022°F	For special identification	Heat protection, welding defender and differentiate work area
Graphite coating	750°C/1382°F	Increase resistance to abrasion and flame, high temperature absorb mote	Welding defender, general purpose insulation
Heat cleaning or Caramelization	550°C/1022°F	Decreasing organic elements to be smoke-free while being heated.	Welding defender, general purpose insulation
Impregnated with High temp. resistance solutions	750°C/1382°F	Increasing resistance to abrasion, flame and high temperature	Welding and fire defender, general heat insulation
PTFE coating	260°C/500°F	Anti-adhesive surface, soil repellent, acid resistant	Convey or belt, acid resistant seclusion
Silicone coating	280°C/536°F	Mechanical load, chemical, oil and corrosive of resistant	Welding defender, compensators, insulation mats, expansion joints, heat production quit
Polyurethane coating	180°C/356°F	Good resistance to abrasion and cuts, waterproof, allergen resistant	Welding protection
Vermiculite coating	750°C/1382°F	Increase resistance to abrasion, flame, high heat	Welding defender, general purpose insulation
PVC coating	180°C/356°F	Good resistance to abrasion, oil and cuts, waterproof	Welding protection, covering fabric
Weave lock or Acrylic resin impregnation	180°C/356°F	Good resistance to abrasion and cuts. Allergen resistant and anti-adhesive surface	Welding protection
Neoprene coating	200°C/392°F	Good resistance to abrasion, allergen resistant	Welding protection

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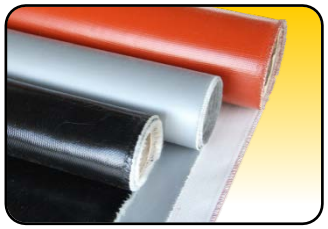
Silicone Coated (Impregnated) Fiberglass Fabrics

Silicone coated (impregnated) fiberglass fabrics are made of fiberglass basic fabrics coated, impregnated or calendered with specially compounded silicone rubber on one or both sides. It has a lot of advantages such as high strength, fire retardant, high temp. resistance, chemical resistance, none-penetrative, non-toxic and so on. It could be used in temperature from-70°C/-94°F to 280°C/536°F.



Application:

--Serve as welding defender, heat protection quilt, foundry splash protection.

--Conveyor belt and expansion joints.

--Electrical insulation, chemical corrosion resistance, packing materials.

--Used for aerospace, marine, chemical industry, power plant, automobile manufacturer, construction, piping and sealing industry.

Glass Filament Fabrics with Silicone Coating

Ref. No.	Weight (g/m2)	Thickness (mm)	Width (m)	Silicone type	Coating color	Coating sides	Process
7628-200LG2	400	0.30	1.27	wet	grey	2	Coating
3732-80SG1	510	0.45	1,1.2, 1.5,2	dry	grey	1	Coating
3732A-80LG1	510	0.45	1,1.2, 1.5,2	wet	grey	1	Coating
3732-130SG2	560	0.50	1,1.2, 1.5,2	dry	grey	2	Coating
3732A-130LG2	560	0.50	1,1.2, 1.5,2	wet	grey	2	Coating
666-120SG1	770	0.75	1,1.5,2	dry	grey	1	Coating
666-150LG1	800	0.75	1,1.5,2	wet	grey	1	Coating
666-200SG2	850	0.80	1,1.5,2	dry	grey	2	Coating
666-200LG2	850	0.80	1,1.5,2	wet	grey	2	Coating
666-300SR2	950	0.85	1,1.5,2	dry	red	2	Coating
666A-200LB1	850	0.80	1,1.5,2	wet	black	1	Coating
666A-240LR2	890	0.80	1,1.5,2	wet	red	2	Coating
666A-300LG2	950	0.85	1,1.5,2	wet	grey	2	Coating
3784-120SG1	980	0.85	1,1.5,2	dry	grey	1	Coating
3784-200SG2	1060	0.90	1,1.5,2	dry	grey	2	Coating
3784-240LR2	1100	0.90	1,1.5,2	wet	red	2	Coating
3786-300SG2	1600	1.30	1,1.5,2	dry	grey	2	Coating
3788-350SG2	2050	1.80	1,1.5,2	dry	grey	2	Coating

Texturized Fiberglass Fabrics with Silicone Coating

Ref. No.	Weight (g/m2)	Thickness (mm)	Width (m)	Silicone type	Coating color	Coating sides	Process
M30-700RS1	1700	1.5	1,1.5	wet	red	1	calendering
M30-1000LR2	2000	1.55	1,1.5	wet	red	2	coating
2626-SIL1500	2450	1.8	1,1.5	wet	red	1	calendering

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M60-900RS1	2950	3.0	1,1.5	wet	red		calendering
M30-LBSJ	5900	4.0	1,1.5	wet	white	2	calendering

Polyurethane Coated Fiberglass Fabrics

Fiberglass cloth woven by high quality E-glass filament yarn , and then coated polyurethane (PU) with aluminum pigments on one side or two sides. Compared with basic fiberglass cloth, it has very good properties like good resistance for abrasion, anti-fray, water-proof, and allergen resistant.

Application:

It's the ideal and economic fabrics used for welding blanket,
fire protecting curtain, expansion joints, and general insulation wrapping.

Glass Filament Fabrics with PU Coating

Ref. No.	Basic cloth	Overall Thickness (mm)	Coating sides	Weight (g/m2)	Width (meter)
7628-20PU1	7628	0.2	1	220	1,1.27,1.5
7628-40PU2	7628	0.2	2	240	1,1.27,1.5
3732-30PU1	3732	0.45	1	460	1, 1.20, 1.5
3732-40PU2	3732	0.45	2	470	1, 1.20, 1.5
666-40PU1	666	0.65	1	690	1, 1.5
666-60PU2	666	0.66	2	710	1, 1.5
666S-40PU1	666S	0.68	1	800	1, 1.5
666S-40PU2	666S	0.70	2	820	1, 1.5

Texturized Fiberglass Fabrics with PU Coating

Ref. No.	Basic cloth	Overall Thickness (mm)	Coating sides	Weight (g/m2)	Width (meter)
2025-40PU1	2025	0.75	1	640	1, 1.5
2025-80PU2	2025	0.75	2	680	1, 1.5
M30-80PU1	M30	1.5	1	1080	1, 1.5
M30-130PU2	M30	1.5	2	1130	1, 1.5
M30S-80PU1	M30S	1.5	1	1230	1, 1.5
M30S-130PU2	M30S	1.5	2	1280	1, 1.5

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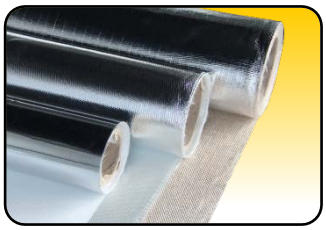
Aluminum Laminated Fiberglass Fabrics

Fiberglass fabrics increase the properties for heat radiant resistance after laminated with aluminum foil. It is used for daily precision apparatus protection, safety defender for manufacture, storage, and transportation of danger tinder, and can offer better protection for different kinds of piping system outside.



Application:

--Pipe protection.

--Motor vehicle, construction, chemical, shipbuilding industry.

--Fire seclusion cover.

Glass Filament Fabrics Laminated with Alu. Foil

Ref. No.	Basic cloth	Thickness of Alu. foil (micron)	Overall Thickness (mm)	Weight (g/m2)	Width (meter)
AL7628	7628	9,18	0.22	220	1,1.5
AL3732	3732	9,18,25	0.42	450	1,1.5
AL666	666	18,25	0.65	700	1,1.5
ALFW600	FW600	18,25	0.65	650	1,1.5
ALFW800	FW800	18,25	0.75	850	1,1.5
AL2025	2025	18,25	0.75	650	1,1.5
ALHT800	HT800	18,25	0.85	850	1, 1.5
ALM30	M30	18,25	1.50	1080	1,1.5
ALFG105T	FG105T 0.8MM	18,25	0.80	600	1,1.5
	FG105T 1.0MM	18,25	1.00	800	1,1.5
	FG105T 1.5MM	18,25	1.50	1000	1,1.5
	FG105T 2.0MM	18,25	2.00	1300	1,1.5
	FG105T 3.0MM	18,25	3.00	1800	1,1.5

Texturized Filament Fabrics Laminated with Alu. Foil

Ref. No.	Basic cloth	Thickness of Alu. foil (micron)	Overall Thickness (mm)	Weight (g/m2)	Width (meter)
AL2025	2025	18,25	0.75	650	1,1.5
ALM30	M30	18,25	1.50	1080	1,1.5
ALFG105T	FG105T 0.8MM	18,25	0.80	600	1,1.5
	FG105T 1.0MM	18,25	1.00	800	1,1.5
	FG105T 1.5MM	18,25	1.50	1000	1,1.5
	FG105T 2.0MM	18,25	2.00	1300	1,1.5

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	FG105T 3.0MM	18,25	3.00	1800	1,1.5

Glass Filament Fabrics Laminated with Alu. + Mylar Foil

Ref. No.	Basic cloth	Thickness of Alu. foil (micron)	Overall Thickness (mm)	Weight (g/m2)	Width (meter)
ML7628	7628	9,18	0.22	220	1,1.5
ML3732	3732	9,18,25	0.42	450	1,1.5
ML666	666	18,25	0.65	700	1,1.5

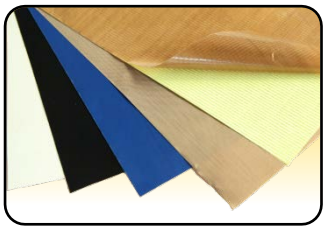
Remark: Alu. and mylar combination further enhance the abrasion resistance performance, mainly used for cold insulation.

PTFE Coated Fiberglass Fabrics

It is made of high-grade glass fiber fabric impregnated and coated with formulated PTFE by adopting our unique processing techniques. It can be backed with self-adhesive cloth for some special application.

Application (1):

Oven and microwave drying belt, food baking liner, flour pan cakes processing, wrapping for plastic seaming, insulating wrapping and separating layer, other industrial conveyer belt.



Specification:

FG105P(A)	Unit	Value in different thickness							
		0.08mm	0.13mm	0.15mm	0.25mm	0.36mm	0.45mm	0.6mm	0.9mm
Oil Resistance	-	good							
Petrol Resistance	-	good							
Acid Resistance	-	good							
Alkali Resistance	-	good							
Tensile strength (N/5cm)	Warp	515	1470	1084	2131	2779	3245	4421	6513
	Weft	488	1172	1155	1815	2112	2923	4188	3311
Weight of Fabric (before coating)	G/squ.mtr	47	104	104	201	254	420	578	799
Weight of Fabric (after coating)	G/squ.mtr	145	250	295	500	650	860	1150	1700
Color	-	brown or black	brown or black	brown or black	brown or black	brown or black	Brown, black or white	off-white hell	off-white hell
Weave		plain	plain	plain	plain	plain	plain	plain	plain
Service Temperature	C degree	-200 up to 270							
Thickness tolerance	mm	+/-0.003	+/-0.005	+/-0.005	+/-0.01	+/-0.015	+/-0.02	+/-0.03	+/-0.045

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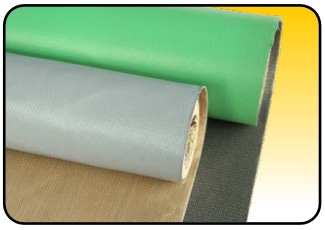
Break down voltage	Kv	>0.7	>1.0	>1.2	>1.2	>1.5	>1.5	>1.7	>1.7
Dielectric constant	10^6HZ	2.6-3.2							

Application (2):

It's the ideal and excellent fabrics for welding blanket, fire protecting curtain, expansion joints, Non-metallic compensator, and anti-corrosion sector.



Ref. No.	Weight (g/m2)	Thickness (mm)	Width (m)	Coating color	Coating sides
3732-130P1	540	0.45	1, 1.5	Grey/green/blue/black	1
3732-200P2	610	0.45	1,1.5	Grey/green/blue/black	2

Heat Treated (Caramelized) Fiberglass Fabrics

We have our fiberglass cloth pass through an oven with high temperature in order to burn of the sizing and other organic elements in the cloth. After this heat treatment, fiberglass cloth will change to brown color and it will be smoke-free during the application.

Application:

No difference from fiberglass loomestate, but especially for the application where smoke is now allowed.

Specification:

Ref. No.	Basic cloth	Overall Thickness (mm)	Weight (g/m2)	Width (meter)
HT3732	3732	0.40	420	1, 1.5
HT84215	84215	0.30	288	1, 1.5
HT666	666	0.60	630	1, 1.5
HT2025	2025	0.75	600	1, 1.5
HT2115	2115	0.80	645	1, 1.5
HT800	3784	0.80	800	1, 1.5
HT2626	2626	1.2	950	1, 1.5
HT3786	3786	1.2	1300	1, 1.5
HT3788	3788	1.7	1680	1, 1.5
HTFG105T	FG105T 0.8MM	0.80	600	1,1.5
	FG105T 1.0MM	1.00	800	1,1.5
	FG105T 1.5MM	1.50	1000	1,1.5
	FG105T 2.0MM	2.00	1300	1,1.5
	FG105T 3.0MM	3.00	1800	1,1.5

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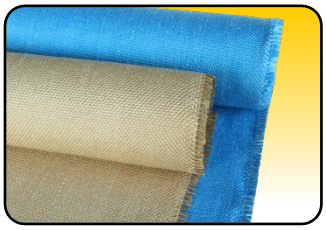
Fiberglass Cloth Impregnated With Hi-Temp. Resistance Solution

It is fiberglass cloth impregnated our special formulated Hi-temp. resistance solutions which provides short temperature resistance of 1000°C/1832°F and increased continuous temperature resistance temperature up to 750°C/1382°F. This impregnation also increases the products' abrasion resistance and adds to its ability to withstand direct flame.



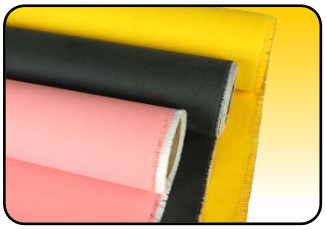
Application:
Welding blankets, fire blanket, fire proof curtains, heat shields, etc

Specification:

Ref. No.	Basic cloth	Overall Thickness (mm)	Color	Weight (g/m2)	Width (meter)
GM2025	2025	0.75	Beige or blue	620	1, 1.5
GWM30	M30	1.4	Beige or blue	1040	1, 1.5
GWM60	M60	3.0	Beige or blue	2100	1, 1.5

Acrylic Resin (Neoprene) Coated Fiberglass Fabrics

It is fiberglass cloth coated with acrylic resin and composite materials with flame retardant and multiple applications. With strong resistance to flammability and excellent resistance to water, along with its high chemical stability, it is used extensively in the field of elastomers.



Application:
Binding pipes and equipment as a kind of material of resistance to aging, corrosion and oil, widely applied in various industrial fire and smoke screens, fire blanket, fire wall, fire partition and etc.

Specification:

Ref. No.	Basic cloth	Overall Thickness (mm)	Color	Weight (g/m2)	Width (meter)
2523-100CR	2523	0.43	Black, salmon	500	1, 1.5
3732-130CR	3732	0.45	Black, salmon	550	1, 1.2, 1.5
2025-200CR	2025	0.8	Yellow, black	800	1, 1.5
3784-200CR	3784	0.8	Black	1080	1, 1.2, 1.5

Vermiculite Coated Fiberglass Fabrics

Vermiculite is a natural mineral which provides a natural inorganic finish to fiberglass. This coating provides short temperature resistance of 1000°C/1832°F and increased continuous temperature resistance temperature up to 750°C/1382°F. Vermiculite

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coated fiberglass cloths increase the products' abrasion resistance and adds to its ability to withstand direct flame, it also provide a dust suppression coating which allows for a safer work environment.

Application:

Welding blankets, fire blanket, fire proof curtains, heat shields, etc.

Specification:

Ref. No.	Basic cloth	Overall Thickness (mm)	Weight (g/m2)	Width (meter)
2025V	2025	0.75	610	1, 1.5
M30V	M30	1.4	1080	1, 1.5
M34V	M34	1.5	1200	1, 1.5
FG105TV	FG105T 1.5mm	1.5	1070	1, 1.5
	FG105T 2.0mm	2	1400	1, 1.5
	FG105T 3.0mm	3	1900	1, 1.5

Weave-Lock Fiberglass Fabrics

In order to increase the abrasion resistance and vary the stiffness of fiberglass cloth, we make weave-lock treatment by impregnating the fabrics with inorganic (e.g. acrylic) or organic (e.g. starch) resin together with certain pigment (if required), it will improve the anti-fray property of the fabrics and eliminate irritation to the skin while cutting, sewing and handling the fabrics.

Application:

Cover materials for Tadpole seals.

Insulation layers in expansion joints. Insulation mattress/jacket cover material.

Specification:

Ref. No.	Basic cloth	Overall Thickness (mm)	Color	Weight (g/m2)	Width (meter)
7628A	7628-1	0.2	White	220	1, 1.27
7628B	7628-1	0.2	Black	220	1, 1.27
3732A	3732	0.45	White	450	1, 1.2, 1.5
FW600BL	FW600	0.6	Blue	650	1, 1.5
FW600GR	FW600	0.6	Green	650	1, 1.5
FW800BL	FW800	0.8	Blue	850	1, 1.5
FW800GR	FW800	0.8	Green	850	1, 1.5
2025A	2025	0.75	White/blue	630	1, 1.5
M30A	M30	1.5	White/blue	1050	1, 1.5

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Welding Blankets

Description:

Welding blankets are made of fiberglass loomstate, caramelized fiberglass, coated fiberglass cloth, and silica cloth which has good construction and endurance of high temperature from 500°C/932°F up to 1100°C/2012°F degree. Various treatments and sizes could be fabricated on request. And we can install with eyelets, clips or Velcro on the blankets in order to suit your individual needs.

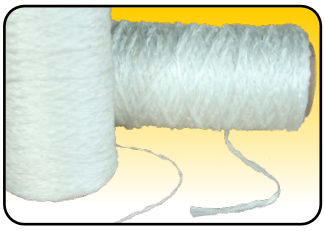
Application:

Welding blankets provide protection from sparks, spatter, slags generated by welding or metal cutting applications, have been widely used in many industries include shipbuilding, construction, automotive parts, oil plants, flammable chemicals, and so on.

The type of welding application determines which type of fabrics are needed.

-Light Duty Welding Blankets(13OZ to 18OZ) : general purpose welding, light sparks, minimal spatter
-Medium Duty Welding Blankets (20OZ to 30OZ): heavier welding, sparks, spatter, light slag
-Heavy Duty Welding Blankets (32OZ to 60OZ): heavy sparks, spatter, slag, possibility of molten metal

Texturized Fiberglass Yarns



It is made of fiberglass roving yarns which are bulged and blown through special instrument with high pressure air; it has high strength as continuous fiber and fluffiness as staple fiber, low thermal conductivity coefficient, high dust-accommodation and filterability.

Specification:

Ref. No: / Item	FG101TEK	FG101TEC	FG101TK	FG101TK
Glass type	E-GLASS		C-GLASS	
Binding material	Starch			
Processing type	K-style	C-style	K-style	C-style
Processing way	Spiral texturizing	Plain texturizing	Spiral texturizing	Plain texturizing
Application	Braiding, weaving twisting	Core of braiding rope, Twisting, knitting	Braiding, weaving twisting	Core of braiding rope Twisting
Temp.resistance	550°C/1022°F		500°C/932°F	
Filament dia	6,9,11Micron		11Micron	
Yarn dia.	400Tex+/-30			
	600Tex+/-40			
	800Tex+/-60			
	1000Ter+/-80			
	1200Ter+/-100			

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	2400Ter+/-200
	5000Ter+/-500
Packing	5KGS or 10KGS/Reel,20KGS/Carton box

Application:
It is the raw materials for all kinds of fiberglass textiles like rope, tape, sleeve, and cloth.

FG106TP Fiberglass Tadpole Tapes

These high temperature, heat & flame resistant and thermal insulating fiberglass tadpole tapes are fabricated with high quality type E fiberglass that will not burn and will withstand continuous exposure to temperatures of 520°C/968°F.

Specification:
Thickness width: 1.6mm-3.0mm
Overall width: 20mm-80mm
Bulb Dia.: 10mm-30mm

Application:
Commonly used as a gasket or seal for access doors and gate valves and other applications.

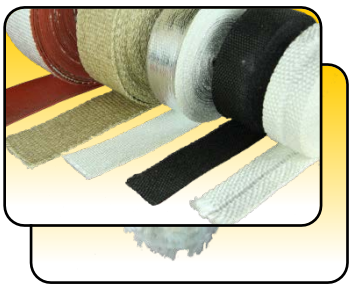
Texturized Fiberglass Tapes

It is fabricated from high quality texturized fiberglass yarns that will not burn and will withstand continuous exposure to temperatures of 520°C/968°F. it resists most acids and alkalis and is unaffected by most bleaches and solvents. Available as a **FG106T Plain tape** or **FG106TT Drop-Warp tape** (center longitudinal yarns missing), often called a **Bolt-hole tape** or **Ladder tape**.

Thickness: 1.5mm up to 6mm
Width: 10mm up to 200mm
Weaving structure: plain for thickness 1.5mm up to 3mm, twill for thickness 4mm up to 6mm
Roll length: 30m or 50m

We also make below treatments for some special applications:

FG106TAL Aluminum foil faced on one side
FG106TV Vermiculite coated on both sides
FG106TH Heat treated (caramelized)
FG106TG Graphite coated on both sides
FG106TSI Silicone coated on one or both sides
FG106TA Backed with self-adhesive tape



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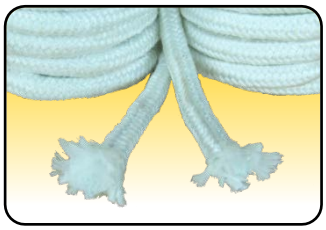
Application:

Provide protection of industrial wires, cables, hoses, tube and pipe and also provide thermal insulation and personnel protection. Also used as a gasket or seal.

Fiber Glass Braided Ropes

This braided rope is fabricated with high quality texturized fiberglass yarns that will not burn and will withstand continuous exposure to temperatures of 520°C/968°F. This material resists most acids and alkalis and is unaffected by most bleaches and solvents. It is highly flexible and conformable.



Specification:

FG102T round braided: Dia. 4mm up to 50mm
FG103T square braided: 4x4mm up to 50x50mm
FG103TREC rectangular braided: as required

Application:

It can be used as a gasket or seal on boiler, coke oven, industrial oven and wood stove/pellet stove doors. It is also used for crucible packing and pollution control equipment, pump shaft packing.

Fiber Glass Knitted Ropes

It is made of high quality texturized fiberglass yarns by knitting process, which will significantly improve the flexibility and elasticity of the rope compared with braiding process. This rope will not burn will withstand continuous exposure to temperatures of 520°C/968°F. This material resists most acids and alkalis and is unaffected by most bleaches and solvents. It is highly flexible and conformable.

Specification:

FG102TEK Knitted rope w/o core: Dia. 4mm up to 25mm
FG102TEKG Knitted rope w/o core, grey/black color: Dia. 4mm up to 25mm
FG102TEKC Knitted rope with core: Dia. 4mm up to 25mm
FG102TEKCG Knitted rope with core, grey/black color: Dia. 4mm up to 25mm

Application:

It can be used as a gasket or seal on boiler, coke oven, industrial oven and wood stove/pellet stove doors. It is also used for crucible packing and pollution control equipment, high temperature tying and lacing cords, as a core rope in tadpole tapes and as a pipe wrap.

Silicone Coated Fiberglass Ropes

This rope is fabricated from knitted type or braided type E fiberglass and then coated with a high grade high-temperature silicone

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rubber. This high-temperature rope is most often used as a seal where a high degree of air or gas or liquid tightness is required. In order to identify the difference, we usually used red silicone for braided type and black silicone for knitted type, both square and round shapes are available.

Specification:

FG103TRS Braided type square: 4x4mm up to 50x50mm
FG102TRS Braided type round: Dia. 4mm up to Dia. 50mm
FG102TEKBS Knitted type round: Dia. 4mm up to 25mm.

Application:

It is designed to be used as a seal in environments that are exposed to the hazards of high heat and occasional flame or molten metal splash, slag, sparks and contamination.

FG101T Fiber Glass Twist Ropes

It is made of high quality texturized fiberglass yarns by twisting process(one-strand twisting or multi-strand twisting), it is the most economic fiberglass rope. This rope will not burn will withstand continuous exposure to temperatures of 520°C/968°F. This material resists most acids and alkalis and is unaffected by most bleaches and solvents. It is highly flexible and conformable.

Specification:

Dia. 3mm up to 60mm

Application:

It can be used as a gasket or seal on boiler, coke oven, industrial oven and wood stove/pellet stove doors. It is also used for crucible packing and pollution control equipment, high temperature tying and lacing cords, as a core rope in tadpole tapes and as a pipe wrap

FG107T Texturized Fiber Glass Sleeves

It is made of high quality texturized fiberglass yarns by twill braiding process, it will not burn and will withstand continuous exposure to temperatures of 520°C/968°F. It resists most acids and alkalis and is unaffected by most bleaches and solvents. It is highly flexible and conformable.

Specification:

Inner Diameter: from 10mm up to 150mm
Wall thickness: 2.5mm up to 3mm

Application:

It provides excellent protection for industrial wires, cables, hoses (hydraulics), tube and pipes and also provides thermal insulation and personnel protection.

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FG107TSIL Silicone Coated Fiberglass Sleeves

We coat extra thick special formulation of silicone rubber on our **FG107T** texturized fiberglass sleeves, it can protect industrial hoses and lines from molten metals, slag, welding splatter, electrical or grinding sparks and contamination. it also provides protection from ozone, UV and abrasion. The standard color of coating is red-oxide, but custom colors such as blue, grey, black, yellow and green are available

Specification:

Inner Diameter: from 10mm up to 150mm
Wall thickness: 2.5mm up to 3mm
Coating thickness: from 1mm up to 2.2mm

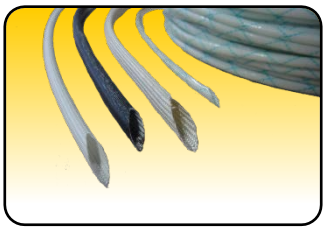
Application:

It is the perfect sleeve and jacket choice for protecting industrial hydraulic hoses and lines, pneumatic lines, fuel & oil lines, brake lines, wires and cables from exposure to high temperature, heat, flame, fire and pyro exposure.

Thin-Wall Fiberglass Sleeves for Wiring

It is made of high quality E-glass filaments by braiding process, it has excellent properties like high temperature, heat and flame resistance, good dielectric stability, excellent flexibility , acid and alkalis resistance, and unaffected by most bleaches and solvents,

It is the perfect choice for protecting wires and cables from exposure to high and extreme heat conditions.
It usually will have below treatments depends on the different application and working medias:



FG107E: plain sleeves
VG201: PVC coated sleeves
HTG-410: heat treated and weave-lock sleeves
AG601: acrylic resin coated sleeves
CSLVG: carbon brush sleeves
SRG-502: silicone rubber coated sleeves
SRG-1: silicone resin coated sleeves(self-extinguishable sleeves)

Application:

It provides excellent protection for industrial wires, cables, hoses (hydraulics), tube and pipes and also provides thermal insulation and personnel protection

FG104T Fiber Glass Rope Lagging

Inside filled with ceramic fiber wool or cut strip of ceramic blanket, outside over braided in open-mesh or close-mesh structure by fiberglass texturized yarns. Compared with standard fiberglass rope, it has good features as low density, higher temperature

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resistance up to 650°C/1202°F, and lower thermal conductivity.

Specification:

Diameter: 10mm up to 50mm.

Roll length: 30meters.

Application:

It is an excellent material for thermal insulation and sealing of stove, burner, chimney door sealing, Seal for heat exchanger, kiln car.

FG106E Fiberglass Filament Tapes

It is made of high quality E-glass filaments by plain weaving process, it has excellent properties like high temperature, heat and flame resistance, good dielectric stability, excellent flexibility , acid and alkalis resistance, and unaffected by most bleaches and solvents,

Specification:

Thickness: 0.1mm up to 0.3mm

Width: 10mm up to 100mm

Application:

It can be used to provide reinforcing insulation in electrical installations, and also can be used as the binding of coils for electrical machinery and appliances.

ENFELT Fiberglass Needle Mat

Fiberglass needle mat uses E-glass fiber roving as the raw materials while each strand is chopped into a 2-3inch fraction via the fiber cutting machine and further decomposed into extreme tiny blanket shape through the cotton carding engine. Subsequently, the needled fabrics are ceaselessly sewn by thousands of needles. It could be faced by FSL foil(Ref. No. **ENFELT-FSK**) to increase heat and light reflection

Specification：

Thickness： 3mm up to 25mm

Density: 100kg/m3 up to 200 kg/m3

Width: 1m up to 2m

Application:

--Subsequent to being dipped into the resin and next processed into lath shapes, the fiberglass blanket is applicable to building construction and gaskets of air conditioners for heat insulation and noise elimination.

--Subsequent to the laminating for aluminum foil and PVC fabrics on the surface and next being processed into straps, it is provide for thermal insulation and protection of cold/hot piping and underground pipes.

--Employed as heat-resistant, tensile, waterproof, anti-erosion materials including heat proofing of engine hoods, cars mufflers, and thermal insulation materials of industrials of industrial boiler sand being able to replace expensive fully-importing asbestos goods.

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FST-T Fiberglass Sewing Thread

It is made of multi-ply fiberglass roving yarn treated with PTFE after high twist compound. It features high tensile strength, good sewing property and high temperature resistance. It widely used in sewing high temperature weave.

Specification:

Item	Filament dia. (μ)	Direction of twist	Turn per meter (min.)	Coating material	Tensile strength (N, min.)	Thread diameter (mm, +/-0.05)	Color
14tex x 12ply	5.5	Z	280	PTFE	95	0.38	golden or off-white
14tex x 16ply	5.5	Z	280	PTFE	105	0.46	

Application:

--Used for sealing and insulating products.

--Sewing safety clothing, gloves, welding and fire blankets.

KST Aramid Fiber Sewing Thread

Aramid Fiber Sewing thread is made of multi-ply 100% Para Aramid fiber yarn. It features high tensile strength, good

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sewing property, high temperature resistance, light weight, abrasion resistance, etc. We usually supply in nature yellow color, but it is dyeable as customized.

Property:

Good resistance to abrasion, Good resistance to organic solvents
Nonconductive, No melting point, degradation starts from 500°C
Low flammability, Good fabric integrity at elevated temperatures
Sensitive to acids and salts, Sensitive to ultraviolet radiation

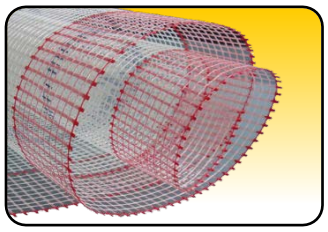
Application:

For sewing high-temperature protective clothing, cut-resistant gloves, body armor, ballistic helmets , etc

Technical data:

Specification	Length/Kg	Tensile Strength(Kg)	Diameter（mm）	Packing
60tex X 2	8299m	5.77	0.39	200g/Spindle
60tex X 3	5470m	9.0	0.50	200g/Spindle
30tex X 2	1 7452m	4.17	0.26	200g/Spindle
30tex X 3	1 1173m	6.26	0.35	200g/Spindle
20tex X 2	2 7778m	2.47	0.18	200g/Spindle
20tex X 3	1 6935m	3.85	0.22	200g/Spindle
15tex X 2	3 3025m	2.08	0.12	200g/Spindle
15tex X 3	2 2578m	3.13	0.17	200g/Spindle

FM Coated Fiberglass Mesh Fabrics



It is woven by fine fiberglass filament yarn in leno or plain structure, and then coated with special formulated acrylic resin. It has excellent properties including water-resistance, alkali-resistance, flexibility, softness, and resistance to aging.

Specification:

Width	Model of raw		Mesh (mm)		Mesh		Weave	Resin	Weight	Fracture strength	
(mm)	yarn (tex)				(mesh/inch)			content	(g/M2)	(N/25mm)	
	warp	woof	warp	woof	warp	woof		(%)		warp	woof
1000-1800	45×2	180	5	5	5±0.5	5±0.5	leno	18±4	60±5	138	280
1000-1800	133×2	440	5	5	5±0.5	5±0.5	leno	18±4	165±12	395	660
1000-1800	100×2	300	4	5	6±0.5	5±0.5	leno	18±4	140±10	360	450
1000-1800	133×2	300	4	5	6±0.5	5±0.5	leno	18±4	160±11	480	450
1000-1800	300×2	67	2.5	2.5	10±0.5	10±0.5	leno	22±4	60±5	200	225
1000-1800	33	67	1.25	2.5	20±0.5	10±0.5	plain	22±4	60±5	270	200

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Application:

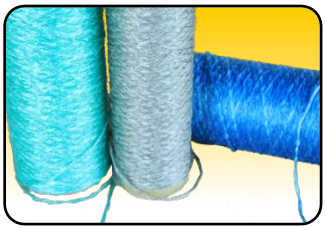
It is widely used for waterproofing in roofing applications, reinforcement for natural marble, plaster board, artificial and Exterior Insulation Finishing System(EIFS)

ET-GLASS FIBER PRODUCTS

Texturized ET-Glass Fiber Yarns

It is made of ET glass fiber roving yarns which are bulged and blown through special instrument with high pressure air. It is suitable for continuous use at 700°C/1292°F and able to withstand short term exposure up to 900°C/1652°F.

It has high strength as continuous fiber and fluffiness as staple fiber, low thermal conductivity coefficient, high dust-accommodation and filterability.



Specification:

Ref. No: / Item	ET101TK	ET101TC
Glass Type	ET-GLASS	
Color	Green / Blue /Grey/White	
Binding Material	Silane	
Processing Type	K-style	C-style
Processing Way	Spiral texturizing	Plain texturizing
Application	Braiding, weaving	Core of braiding rope,
	Twisting	Twisting
Continuous Working Temp	700°C/1292°F	
Instant Working Temp	900°C/1652°F	
Thermal conductivity	≤0.035Keal/M.H.°C	
Filament Dia	13Micron	
Yarn Dia.	300Tex+/-25	
	400Tex+/-30	
	600Tex+/-40	
	1200Ter+/-100	
	2400Ter+/-200	
	4800Ter+/-450	
Packing	5KGS or 10KGS/Reel,20KGS/Carton box	

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Application:

It is the raw materials for all kinds of ET-glass fiber textiles like rope, tape, sleeve, and cloth.

Texturized ET-Glass Fiber Textiles

It includes texturized ET-glass fiber tapes, ropes, fabrics which are made from high quality texturized ET-glass Fiber yarns that will not burn and will withstand continuous exposure to temperatures of 1292°F/700°C, short term exposure up to 900°C/1652°F. It resists most acids and alkalis and is unaffected by most bleaches and solvents.

Texturized ET-Glass Fiber Tapes				
Ref. No.	**Type**	**Thickness**	**Width**	**Treatment**
ET106T	Plain Tape	1.5 up to 6.0 (1.5-3 plain weave, 4-6 twill weave)	10 up to 200	Aluminum foil lamination/ Vermiculite coated /Graphite coated/ Silicone coated/ Backed with self-adhesive tape/Color dyeing
ET106TT	Ladder Tape / Drop-Warp tape			
Application	Provide protection of industrial wires, cables, hoses, tube and pipe and also provide thermal insulation and personnel protection. Also used as a gasket or seal.			

Texturized ET-Glass Fiber Ropes			
Ref. No.	**Type**	**Size**	**Treatment**
ET102T	Round braided	Dia. 4mm up to 50mm	Vermiculite coated /Graphite coated/ Silicone coated/Color dyeing
ET103T	Square braided	4x4mm up to 50x50mm	
ET103TREC	Rectangular braided	as required	
ET101T	Twisted rope	Dia. 3mm up to 60mm	
ET102TK	Knitted rope	Dia. 4mm up to 25mm	
ET102TKG	Knitted rope, grey/black color	Dia. 4mm up to 25mm	
ET102TKC	Knitted rope with core	Dia. 4mm up to 25mm	
ET102TKCG	Knitted rope with core, grey/black color	Dia. 4mm up to 25mm	
Application	Used as a gasket or seal on boiler, coke oven, industrial oven and wood stove/pellet stove doors. It is also used for crucible packing and pollution control equipment, high temperature tying and lacing cords, as a core rope in tadpole tapes and as a pipe wrap.		

Texturized ET-Glass Fiber Cloth

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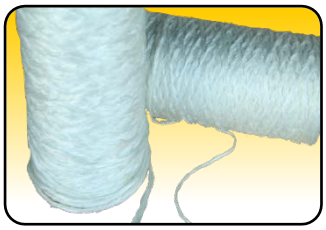
Ref.No.	Weave	Thickness (mm)	Weight (g/m2)	Treatment
ET105T	Plain	1.5	1000	Vermiculite coated /Graphite coated/ Silicone coated/Color dyeing, etc.
ET105T	Plain	2.0	1300	
ET105T	Plain	3.0	1800	
Application	All types of thermal insulation and heat protection, Expansion joints, safety defender, piping and heat insulation in nautical equipment. Basic cloth for finish treatment in order to meet special applications			

SILICA FIBER PRODUCTS

Texturized Silica Fiber Yarns

It is made of high SiO2 content texturized fiberglass yarns with specially formulated acid treatment. It contains higher than 96% SiO2,suitable for continuous use at 1100°C/2012°F and able to withstand short term exposure up to 1650°C/3002°F. Firewheel also makes an economical type of texturized silica yarn which is suitable for continuous use at 900°C/1652°F and able to withstand short term exposure up to 1200°C/2192°F.

Application:
It is the raw materials for all kinds of texturized silica textiles like rope, tape, sleeve, and cloth.



Specification:

Ref. No: / Item	HISI101TK	SI101TK
Chemical Content	SiO2 >96%	SiO2:70%-75%
	Al2O3+B2O3+CaO+MgO ＜4%	Al2O3+B2O3+CaO+MgO ＜25%
Coating (pu)	2.0%	1.5%
Application	Braiding, Core of braiding rope, Twisting, knitting	Braiding, Core of braiding rope, Twisting, knitting
Color	White	Brown
Continuous Temp.Resistance	1100°C/2012°F	900°C/1652°F
Filament Dia.	6-7Micron	7-9Micron
Shrinkage	<5% (1000°C,1Hour)	5-8% (700°C, 1Hour)
Yarn Tex	Breakage Strength, N	

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600Tex+/-60	>60	>80
900Tex+/-60	>80	>80
1200Tex+/-80	>90	>100
1400Ter+/-100	>100	>110
2400Ter+/-120	>110	>120
2800Ter+/-140	>120	>130
Packing	4KGS/Reel,16KGS/Carton box	

Texturized Silica Fiber Tapes

It is fabricated from texturized silica fiber yarns that will not burn and withstand continuous exposure to temperature of 1100°C/2012°F, short term exposure up to 1650°C/3002°F. Firewheel also makes an economical silica fiber tape suitable for continuous use at 900°C/1652°F, short term exposure up to 1200°C/2192°F. Both type of tapes resist most acids and alkalis and is unaffected by most bleaches and solvents.

Application:

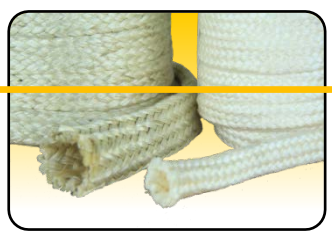
Provide protection of industrial wires, cables, hoses, tube and pipe and thermal insulation and personnel protection. Also used as a gasket or seals

Ref. No.	Type	Thickness (mm)	Width (mm)	Temp. resistance	Color
HISI106T	Plain Tape	1.5 up to 6.0 (1.5-3 plain weave, 4-6 twill weave)	15 up to 200	1100°C/2012°F	White
HISI106TT	Ladder Tape / Drop-Warp tape			1100°C/2012°F	White
SI106T	Plain Tape			900°C/1652°F	Brown
SI106TT	Ladder Tape / Drop-Warp tape			900°C/1652°F	Brown

Texturized Silica Fiber Sleeves

It is made of high quality texturized silica fiber yarns by twill braiding process; It will not burn and withstand continuous exposure to temperature of 1100°C/2012°F, short term exposure up to 1650°C/3002°F. Firewheel also makes an economical silica fiber sleeves suitable for continuous use at 900°C/1652°F, short term exposure up to 1200°C/2192°F. Both type of resist most acids and alkalis and is unaffected by most bleaches and solvents. It is highly flexible and conformable.

Application:



It provides excellent protection for industrial wires, cables, hoses (hydraulics), tube and pipes and also provides thermal insulation and personnel protection.

Ref. No.	Inner diameter (mm)	Wall thickness (mm)	Temp. resistance	Color
HISI107T	10 up to 150	2.5mm up to 3mm	1100°C/2012°F	White
SI107T	10 up to 150	2.5mm up to 3mm	900°C/1652°F	Brown

Texturized Silica Fiber Ropes

These ropes are made from texturized silica fiber yarns that will not burn and withstand continuous exposure to temperature of 1100°C/2012°F, short term exposure up to 1650°C/3002°F. Firewheel also makes an economical silica fiber ropes suitable for continuous use at 900°C/1652°F, short term exposure up to 1200°C/2192°F. These ropes resist most acids and alkalis and is unaffected by most bleaches and solvents. Twisted ropes are highly flexible and conformable.

Application:

It can be used as a gasket or seal on boiler, coke oven, industrial oven and wood stove/pellet stove doors. It is also used for crucible packing and pollution control equipment, pump shaft packing. Twisted ropes are also used for high temperature tying and lacing cords, as a core rope in tadpole tapes and as a pipe wrap

Ref. No.	Type	Size (mm)	Temp. resistance	Color
HISI102T	Braided Round rope	Diameter 4 up to 50	1100°C/2012°F	White
HISI103T	Braided Square Rope	4x4 up to 50x50	1100°C/2012°F	White
HISI103TREC	Braided Rectangular Rope	As required	1100°C/2012°F	White
SI102T	Braided Round rope	Diameter 4 up to 50	900°C/1652°F	Brown
SI103T	Braided Square Rope	4x4 up to 50x50	900°C/1652°F	Brown
SI103TREC	Braided Rectangular Rope	As required	900°C/1652°F	Brown
HISI101T	Twisted Rope	3mm up to 60mm	1100°C/2012°F	White
SI101T	Twisted Rope	3mm up to 60mm	900°C/1652°F	Brown

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Texturized Silica Fiber Cloth

Textuirzed silica fiber cloths are made from high SiO2 content texturized fiberglass cloth with specially formulated acid treatment. It will not burn and withstand continuous exposure to temperature of 1100°C/2012°F, short term exposure up to 1650°C/3002°F. Firewheel also makes an economical silica fiber cloth suitable for continuous use at 900°C/1652°F, short term exposure up to 1200°C/2192°F. Both type of cloths resist most acids and alkalis and is unaffected by most bleaches and solvents.

Application:

--All types of thermal insulation and heat protection

--Expansion joints, safety defender, piping and heat insulation in nautical equipment

--Basic cloth for finish treatment in order to meet special applications

Ref. No.	Weave	Weight (g/m^2)	Thickness (mm)	Width (m)	Temp. resistance	Color
HISI105T	Plain	1400	2	1	1100°C/2012°F	Brown
	Twill	1600	3	1	1100°C/2012°F	Brown
SI105T	Plain	1000	1.5	1	900°C/1652°F	Brown
	Plain	1500	2	1	900°C/1652°F	Brown
	Twill	2000	3	1	900°C/1652°F	Brown

Silica Filament Cloth

It is made from high SiO2 content fiberglass cloth with specially formulated acid treatment. it is suitable for continuous use at 1100°C/2012°F, and able to withstand short term exposure up to 1650°C/3002°F. This fabric sets the standard for flexibility and minimum lineal shrinkage under high heat conditions. Firewheel also makes an economic silica cloth suitable for continuous use at 900°C/1652°F and able to withstand short term exposure up to 1200°C/2192°F.

Additional polyurethane coating, silicone coating and vermiculite coating will enhance the fabrics unmatched abrasion resistance and tensile strength.

Application:

This product is ideal for heat preservation material, firefighting equipment like fire curtains and fireproof garments. Very good in dust collection and

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filtration equipment where special material is needed to withstand high temperature gas, and in filtering high-temperature liquid metal

Ref. No.	Weave	Weight (g/m2)	Thickness (mm)	Width (m)	Temp. resistance	Color
Hisilica84	Satin	600	0.70	0.92, 1	1100°C/2012°F	White/golden
Hisilica86	Satin	880	1.0	0.92, 1	1100°C/2012°F	White/golden
Hisilica88	Satin	1100	1.35	0.92, 1	1100°C/2012°F	White/golden
Silica84	Satin	600	0.70	0.92, 1	900°C/1652°F	Golden
Silica86	Satin	880	1.0	0.92, 1	900°C/1652°F	Golden
Silica88	Satin	1100	1.35	0.92, 1	900°C/1652°F	Golden

SLST Silica Sewing Thread

It is made of multi-ply 96% pure SiO2 silica fiber yarn treated with PTFE after high twist compound. It features high tensile strength, good sewing property and high temperature resistance.

Application:

--Used for sealing and insulating products

--Sewing safety clothing, gloves, welding and fire blankets

Thread Diameter (mm-/+0.05)	0.2	0.3	0.45	0.75	1.0	1.2
Thread (tex)	180	240	360	550	880	1100
Yarn (tex)	15tex×12ply	15tex×16ply	18tex×20ply	46tex×12ply	44tex×20ply	46x×24y
Direction Of Twist	S					
Turn Per Meter (Min.)	180					
Coating Material	PTFE					
Continuous Working Temp.	1100					
Instant Working Temp. (°C)	1400					
Color	Off-White					
Package	1 kg/roll			2-4 kg/roll		

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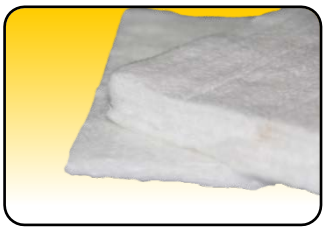
SNFELT Silica Needle Mat

It is specially carded to produce a high volume batt. This is then mechanically needled to bond the fibers which results in a dimensionally stable mat or felt, possessing excellent thermal and acoustic insulating properties without any chemical binder.

Silica needle mats are suitable for continuous use at temperature up to 1100C degree, Characteristics are a low coefficient of thermal conduction, low heat storage and absolute in combustibility. Silica needle mat is friendly to the skin, not hazardous to health and has excellent resistance to chemicals.

Specification:

Continuous working temp.:	1100°C
Instant working temp:	1400°C
Thickness:	4mm up to 25mm
Density:	150kg/m3 up to 180kg/m3
Width:	914mm-1000mm
Roll length:	up to 50meters.



Application:

Steelworks, Aluminum industry, petro-chemical industry, furnace industry: thermal insulation for duct.Machinery, household appliances: thermal insulation material. Autos and motorcycles: thermal and acoustic insulation material for exhaust pipe, muffle

CERAMIC FIBER PRODUCTS

Ceramic Bulk Fiber

The production of ceramic fiber spun/blowing bulk takes use of electric resistance furnace melting method with the characteristics of stable performance, long fiber, strong tensile strong, less shot, excellent thermal stability, clean and white color etc. It is the optimum material for the production of fiber textile and also the perfect material for sealing, filling and insulating in high-temperature environment.

Application：

--Raw material of fiber textile
--Filling material of wall lining of industrial furnace
--Raw material of wet method products
--Raw material of fiber spraying, casting materials and coating materials

Specification:

Item	STD
Specification temp(°C)	1260
Working temp(°C)	1000

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Color		White
Fiber Dia.(um)		2-4
Fiber length(mm)		10-150
Rate of liner(%)		-3
(24h.128kg/m^3)		(1000C)
Rate of thermal conductivity(W/m.K)		0.09(400C)
		0.16(800C)
		0.20(1000C)
Chemical Composition (%)	Al_2O_3	46
	Al_2O_3+SiO_2	97
	Al_2O_3+SiO_2+ZrO_2	-
	ZrO_2	-
	Fe_2O_3	<1.0
	Na_2O-K_2O	≤0.5

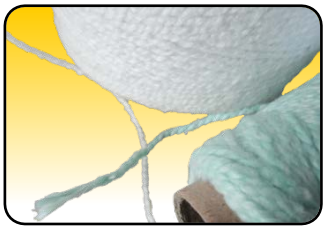
Ceramic Fiber Yarns

It is made of the high quality textiles-grade ceramic bulk fiber mixed with long fiber binder through our special technological process. Each yarn is reinforced by a fiberglass filament in order to improve the tensile strength while weaving, braiding or knitting for other textiles. Extra metal wire reinforcement is available.

Application:
Basic raw materials for other ceramic fiber textiles.

Specification:

Ref. No.	Reinforcement	Temp. resistance (°C)	Diameter (tex)	Multi-ply
C101G	Glass filament	650	525 up to 2000	2 or 3
C101S	Glass filament+s.s.wire	1000	525 up to 2000	2 or 3



Ceramic Fiber Ropes

It includes three styles: twisted, round braided and square braided. All are made of our high quality ceramic fiber yarns. They can be used for high temperature applications up to 1000° C. The rope is reinforced with fiberglass filament, and optional stainless steel wire. It contains a certain amount of binder material which is normally burned at lower temperature and does not affect the insulation property.

Application:
They the perfect material for door seals or caulking for ovens, furnaces and boilers, expansion joints, cable or pipe wrapping, high

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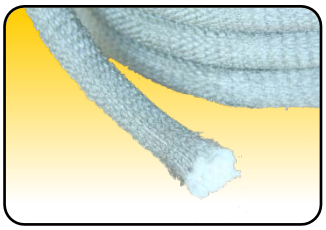
temperature seals or gaskets. These products have been widely used in welding, foundry works, aluminum and steel mills, boiler insulation and seal, exhaust systems, shipyards, refineries, power plants and chemical plants. They are also used as the core in tadpole gaskets. The three different styles are designed to fit different application needs: twisted rope is a soft rope, while square and round braid are more dense and solid.

Ceramic Fiber Twisted Rope

Ref. No.	Reinforcement	Temp. resistance (°C)	Diameter (mm)	Twisting strands
C101TG	Glass filament	650	3 up to 60	1 or multi-strand
C101TS	Glass filament+s.s.wire	1000	3 up to 60	1 or multi-strand

Ceramic Fiber Round Braided Rope

Ref. No.	Yarn Reinforcement	Temp. resistance (°C)	Diameter (mm)	Remark
C102G	Glass filament	650	5 up to 60	-
C102S	Glass filament+s.s.wire	1000	5 up to 60	-
C102GC	Glass filament	650	5 up to 60	With core of ceramic wool
C102SC	Glass filament+s.s.wire	1000	5 up to 60	With core of ceramic wool
C102S-OM	Glass filament+s.s.wire	1000	5 up to 60	Jacked with S.S wire mesh



Ceramic Fiber Square(Rectangular) Braided Rope

Ref. No.	Reinforcement	Rope Type	Temp. resistance (°C)	Diameter (mm)
C103G	Glass filament	Square	650	5 up to 60
C103S	Glass filament+s.s.wire	Square	1000	5 up to 60
C103GREC	Glass filament	rectangular	650	5 up to 60
C103SRECC	Glass filament+s.s.wire	rectangular	1000	5 up to 60

Ceramic Fiber Rope Lagging

Inside filled with ceramic fiber wool or cut strip of ceramic blanket, outside over braided in open-mesh or close-mesh structure by

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ceramic fiber yarns. Compared with fiberglass ropes, it has good features as low density, higher temperature resistance up to 1260°C/2300°F, and lower thermal conductivity.

Specification:

C104G With glass fiber reinforced ceramic fiber yarn mesh

C104S With glass fiber + s.s wire reinforced ceramic fiber yarn mesh

Diameter: 10mm up to 50mm.

Roll length: 30meters.

Application:

It is an excellent material for thermal insulation and sealing of stove, burner, chimney door sealing, Seal for heat exchanger, kiln car.

Ceramic Fiber Tapes

It is a woven fabric made of our high quality ceramic fiber yarns. It can be used for high temperature applications up to 1000° C. The tape is reinforced with fiberglass filament, and optional stainless steel wire. It contains a certain amount of binder material which is normally burned at lower temperature and does not affect the insulation property

Application:

Protective and insulating covers or shields, cable or pipe wrapping, expansion joints, high temperature seals or gaskets. The product has been widely used in welding, foundry works, aluminum and steel mills, boiler insulation and seal, exhaust systems, shipyards, refineries, power plants, and chemical plants.

Specification:

Ref. No.	Reinforcement	weave	Temp. resistance (°C)	Thickness (mm)	Width (mm)	Available treatments
C106G	glass filament	plain	650	2up to 6	10 up to 200	Heat cleaning, backed with self-adhesive tape, graphite coating
C106S	glass filament+s.s.wire	plain	1000	2up to 6	10 up to 200	
C106GL	glass filament	drop warp	650	2up to 6	10 up to 200	
C106SL	glass filament+s.s.wire	drop warp	1000	2up to 6	10 up to 200	

Ceramic Fiber Cloth

It is a woven fabric made of our high quality ceramic fiber yarns. It can be used for high temperature applications up to1000° C. The

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cloth is reinforced with fiberglass filament, and optional stainless steel wire. It contains a certain amount of binder material which is normally burned at lower temperature and does not affect the insulation property.

Application:

It can used as expansion joints, safety blankets, curtains, welding blankets, protective and insulating covers, shields, gaskets, cable or pipe wrapping, etc. It has been widely used in welding, foundry works, aluminum and steel mills, boiler insulation and seal, shipyards, refineries, power plants and chemical plants

Specification:

Ref. No.	Reinforcement	Cloth Type	Temp. resistance (°C)	Thickness (mm)	Width (m)	Available treatments
C105G	glass filament	plain	650	1.5up to 5	1 and 1.5	Heat cleaning, Alu. Foil facing, vermiculite coating
C105S	glass filament+s.s.wire	plain	1000	1.5up to 5	1 and 1.5	

Ceramic Fiber Sleeves

It is a woven fabric made of our high quality ceramic fiber yarns. It can be used for high temperature applications up to1000° C. The cloth is reinforced with fiberglass filament, and optional stainless steel wire. It contains a certain amount of binder material which is normally burned at lower temperature and does not affect the insulation property.

Application:

It is the perfect sleeve and jacket choice for protecting industrial hydraulic hoses and lines, pneumatic lines, fuel & oil lines, brake lines, wires and cables from exposure to high temperature, heat, flame, fire and pyro exposure.

Specification:

Ref. No.	Reinforcement	weave	Temp. resistance (°C)	Wall Thickness (mm)	Inner Dia. (m)
C107G	glass filament	plain	650	1.5up to 5	10 and 150
C107S	glass filament+s.s.wire	plain	1000	1.5up to 5	10 and 150

CBLK96/128 Ceramic Fiber Blanket

It is a needled blanket made from our ceramic bulk fiber which can withstand temperature up to 1400C degree(depends on different

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quality grades). The blanket is lightweight, flexible, and available in a wide variety of thicknesses, widths and densities.

Application:

-Insulation and linings for furnaces, kilns, generators, reformers, boilers, etc.

-High-temperature pipe insulation, casting mold insulation, etc.

-High-temperature seals and gaskets, furnace door seals, expansion joint seals and filtration.

Specification:

Item		COM	STD	HP	HA	HZ
Specification tem (℃)		1260	1260	1260	1400	1400
Working temp (℃)		＜1000	1000	1100	1200	1350
Color		White	White	White	White	White
Density (kg/m3)		96 128	96 128	96 128	96 128	96 128
Rate of liner (%) (24h.128kg/m3)		-4 （1000℃）	-3 （1000℃）	-3 （1100℃）	-3 （1200℃）	-3 （1350℃）
Rate of thermal Conductivity (W/m.K) (128kg/m3)		0.09（400℃） 0.16（800℃）	0.09（400℃） 0.16（800℃） 0.20（1000℃）	0.09（400℃） 0.16（800℃） 0.20（1000℃）	0.12（600℃） 0.20（1000℃）	0.15（80℃） 0.20（1000℃）
Standard roll dimension		12.5x610x14400, 25x610x7200, 50x610x3600				
Tensile strength (Mpa) (128kg/m3)		0.04	0.04	0.04	0.04	0.04
Chemical Composition (%)	Al2O3	44	46	47-49	52-55	39-40
	Al2O3+SiO2	96	97	96	99	-
	Al2O3+SiO2+ZrO2	-	-	-		99
	ZrO2	-	-	-		15-17
	Fe2O3	＜1.2	＜1.0	0.2	0.2	0.2
	Na2O+K2O	＜＝0.5	＜＝0.5	0.2	0.2	0.2

CFMBK Ceramic fiber Moudle

Firewheel ceramic fiber modules are made from compressed ceramic fiber blanket. These modules are specially designed to meet or improve the thermal insulation requirements of industrial furnaces in some special thermal conditions. We offer ceramic fiber modules with various anchoring systems to enable quick, easy and efficient installation in most furnace linings. Modules have the reliable thermal maintenance and longtime treatment. Module linings prevent heat loss, increasing the furnace productivity and reducing maintenance costs. Anchors available-S304,S310

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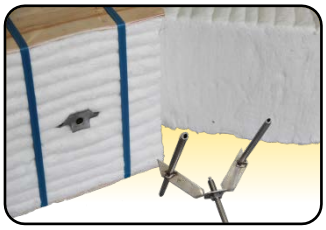
Features



Fast and easy installation, Lower heat storage and fuel costs.
Fast temperature cycling, Easy repair and low insulation costs.

Applications

Boiler insulation, Stack linings, Refining and Petrochemical,
Ethylene furnace roof and walls, Pyrolysis furnace lining Reformer furnace roof and walls.

CFP Ceramic Fiber Paper

It is made of refractory fiber with high purity which is used in high-temperature insulating fields. The advance manufacturing technology makes the distribution of fiber be very even and the paper's thickness and storage can also be controlled strictly. It is purely white and flexible with excellent flatness and mechanical working performances well as excellent refractory and insulating effect.

Application:

-Thermal insulation, gasket, seal, separator, lining, etc. for high temperature and chemical resistant applications

Specification:

Item	Unit	Value
Density	Kg/m^3	180-200
Spec. temp.	°C	1260
Working temp.	°C	1000
Thermal conductivity	w/m.k	<0.16
Tensile strength	mpa	>0.3
Organic element content	%	<10%
Moisture content	%	<1%
Al_2O_3	%	>40
SiO_2	%	>47%
Thickness	mm	1 up to 6
Width	mm	610,1220
Length	m	10 p to 50

CBD Ceramic Fiber Board

It is made of ceramic bulk fiber with special formulated binder and produced by vacuum formed technology. The board is has excellent toughness and intensity, and excellent erosion resistance, it is available in a wide variety of thicknesses, widths and densities

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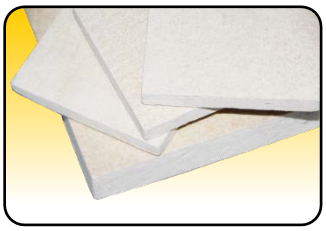
Application:

It is used for a variety of thermal insulation applications, including refractory linings, backup insulation, baffles and muffles, heat shields, combustion chambers, flue insulation, and fire protection.



Specification:

Item		COM	STD	HP	HA	HZ
Specification temp(°C)		1260	1260	1260	1400	1400
Working temp(°C)		＜1000	1000	1100	1200	1350
Color		White	White	White	White	White
Density(Kg/m)³		260 320	260 320	260 320	260 320	260 320
Rate of liner(%) (24h.320kg/m³)		-4 （1000 °C）	-3 （1100 °C）	-3 （1100 °C）	-3 （1200 °C）	-3 （1350 °C）
Rate of thermal Conductivity(W/m.k) (Density 285kg/m³)		0.085（400°C） 0.132(800 °C) 0.180(1000 °C)	0.085（400°C） 0.132(800 °C) 0.180(1000 °C)	0.085（400°C） 0.132(800 °C) 0.180(1000 °C)	0.085（400°C） 0.132(800 °C) 0.180(1000 °C)	0.085（400°C） 0.132(800 °C) 0.180(1000 °C)
Standard thickness(mm)		10, 12.5, 20, 25, 40, 50				
Standard dimension (mm)		600x400, 600x900, 600x1200, 1000x1200, 1200x1200				
Tensile strength(MPa)		0.5	0.5	0.5	0.5	0.5
Chemical Composition (%)	Al_2O_3	44	46	47-49	52-55	39-40
	$Al_2O_3+SiO_2$	96	97	99	99	-
	$Al_2O_3+SiO_2+ZrO_2$	-	-	-	-	99
	ZrO_2	-	-	-	-	15-17
	Fe_2O_3	<1.2	<1.0	0.2	0.2	0.2
	Na_2O+K_2O	<=0.5	<=0.5	0.2	0.2	0.2

BIO-SOLUBLE FIBER PRODUCTS

Bio-Soluble Fiber Yarns

It is made of the Insulfrax® Fiber from Unifrax which is a man-made vitreous fiber based on a calcium, magnesium, silicate composition. A high fiber index (low percentage of unfiberized particles) provides the excellent thermal performance associated with traditional fibrous insulating materials and able to withstanding continuous operating temperatures up to 1100°C (2012° F).

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This fiber is designed to have enhanced in-vitro solubility characteristics to meet European regulatory requirements (Directive 97/69/EC) for man-made vitreous fibers. Each yarn is reinforced by a fiberglass filament in order to improve the tensile strength while weaving, braiding or knitting for other textiles. Extra metal wire reinforcement is available.

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Application:

Basic raw materials for other bio-soluble fiber textiles.

Specification:

Ref. No.	Reinforcement	Temp. resistance (℃)	Diameter (tex)	Multi-ply
S101G	Glass filament	650	525 up to 2000	2 or 3
S101S	Glass filament+S.S.wire	1000	525 up to 2000	2 or 3

Bio-Soluble Fiber Textiles

It includes bio-soluble fiber ropes, tapes and cloths, etc. All are made of bio-soluble fiber yarns spun by Insulfrax® Fiber from Unifrax. They can be used for high temperature applications up to 1000°C. The yarn is reinforced with fiberglass filament, and optional stainless steel wire. It contains a certain amount of binder material which is normally burned at lower temperature and does not affect the insulation property.

Bio-Soluble Fiber Tapes					
Ref. No.	**weave**	**Reinforcement**	**Temp. resistance (℃)**	**Thickness(mm)**	**Width(m)**
S106G	plain	glass filament	650	2up to 6	10 up to 200
S106S	plain	glass filament+s.s.wire	1000	2up to 6	10 up to 200
S106GL	drop warp	glass filament	650	2up to 6	10 up to 200
S106SL	drop warp	glass filament+s.s.wire	1000	2up to 6	10 up to 200
Application	Protective and insulating covers or shields, cable or pipe wrapping, expansion joints, high temperature seals or gaskets. The product has been widely used in welding, foundry works, aluminum and steel mills, boiler insulation and seal, exhaust systems, shipyards, refineries, power plants, and chemical plants.				

Bio-Soluble Fiber Ropes				
Ref. No.	**Type**	**Reinforcement**	**Temp. resistance (℃)**	**Diameter (mm)**
S101TG	Twisted Rope	Glass filament	650	3 up to 60
S101TS	Twisted Rope	Glass filament+s.s.wire	1000	3 up to 60
S102G	Braided Round Rope	Glass filament	650	5 up to 60

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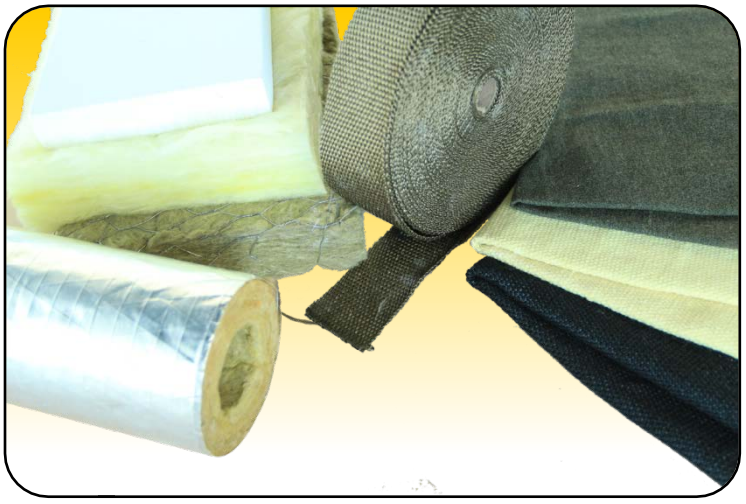
S102S	Braided Round Rope	Glass filament+s.s.wire	1000	5 up to 60
S103G	Braided Square Rope	Glass filament	650	5 up to 60
S103S	Braided Square Rope	Glass filament+s.s.wire	1000	5 up to 60
Application	Perfect material for door seals or caulking for ovens, furnaces and boilers, expansion joints, cable or pipe wrapping, high temperature seals or gaskets. Widely used in welding, foundry works, aluminum and steel mills, boiler insulation and seal, exhaust systems, shipyards, refineries, power plants and chemical plants.			

Bio-Soluble Fiber Sleeves					
Ref. No.	**Weave**	**Reinforcement**	**Temp. resistance (°C)**	**Thickness(mm)**	**Width(m)**
S107G	Plain	glass filament	650	1.5up to 5	10 and 150
S107S	Plain	glass filament+s.s.wire	1000	1.5up to 5	10 and 150
Application	It is the perfect sleeve and jacket choice for protecting industrial hydraulic hoses and lines, pneumatic lines, fuel & oil lines, brake lines, wires and cables from exposure to high temperature, heat, flame, fire and pyro exposure.				

Bio-Soluble Fiber Cloth					
Ref. No.	**weave**	**Reinforcement**	**Temp. resistance (°C)**	**Thickness(mm)**	**Width(m)**
S105G	plain	glass filament	650	1.5up to 5	1 and 1.5
S105S	plain	glass filament+s.s.wire	1000	1.5up to 5	1 and 1.5
Applicatoin	It can used as expansion joints, safety blankets, curtains, welding blankets, protective and insulating covers, shields, gaskets, cable or pipe wrapping, etc.				

OTHER THERMAL INSULATION MATERIALS

- **Calcium Silicate**
- **Rock Wool**
- **Glass Wool**
- **Basalt Textiles**
- **Aramid Textiles**
- **Carbon Fiber Textiles**
- **Aerogel insulation mat**



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