

## Braided Packing



## Gasket

## Insulation Material



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**BOSNAX (THAILAND) CO.,LTD.**

**บริษัท บอสแน็กซ์ (ประเทศไทย) จำกัด**

141 Phiboonwattana, Rama 6 Rd., Samsennai, Payathai, Bangkok 10400

Tel : 0-2271 2984 (Auto) Fax : (662) 618-5482 E-mail : [marketing@bosnax.com](mailto:marketing@bosnax.com)



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## BRAIDED PACKING SERIES

### 1. Carbon Fiber Packing



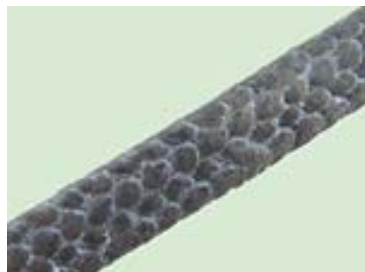
#### 1.1 Carbonized Fiber Packing

**Description :** Braided from shrink-proof synthetic fiber impregnated with PTFE, silicon-oil-free, which is oxidized polyacrylonitrile fiber. Compared to traditional carbon fiber packing, it is not brittle, can suited for high peripheral speeds and food industries. Oxidized fiber has high strength and good thermal conductivity, PTFE makes the packing have excellent self-lubrication, so this packing does not damage shafts and has long life.

**Application :** It can be used in weak acids and alkalis or media containing few grains of solid particles, both dynamic and static, mainly used for centrifugal pumps, plunger pumps, mixers and valves. Without cooling it can be used with hot water up to 160°C , with cooling it can be used with hot water up to 207°C. Particularly ideal for hot water, condensate and main coolant pumps.

#### Parameter :

Temperature	-50~+280 °C	
Pressure-Shaft	Rotating	20 bar-25m/s
	Reciprocating	100 bar-2m/s
	Valve	200 bar-2m/s
PH Range	2~12	
Density	1.1~1.3g/cm <sup>3</sup>	



#### 1.2 Carbonized Fiber Packing with Graphite

**Description :** Carbonized PAN fiber impregnated with PTFE dispersion containing graphite particles, PTFE and graphite makes the packing have excellent self lubrication.

**Construction :** Carbonized Fiber Packing Reinforced with Nickel wire  
The wire reinforcement provides increased mechanical strength, usually for static.

**Application :** It can be used in weak acids and alkalis or media containing few grains of solid particles, both dynamic and static, mainly used for centrifugal pumps, plunger pumps, mixers and valves. Without cooling it can be used with hot water up to 160°C , with cooling it can be used with hot water up to 207°C. Particularly ideal for hot water, condensate and main coolant pumps.

#### Parameter :

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Pressure-Shaft	Rotating	20 bar-25m/s
	Reciprocating	100 bar-2m/s
	Valve	200 bar-2m/s
PH Range	2~12	
Density	1.1~1.3g/cm <sup>3</sup>	



### 1.3 Carbon Fiber Packing

**Description :** Braided from strong carbon continuous yarns after softening, impregnated with proprietary lubricants and graphite particles, which fill voids, act as a break-in lubricant, and block leakage.

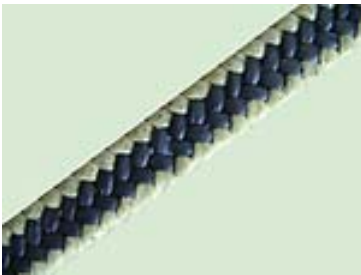
**Construction :** Carbon Fiber Packing Reinforced with Inconel wire  
The Inconel wire reinforcement provides increased mechanical strength, usually for static.

**Application :** To be used as packing material for stuffing boxes of pumps or valves in high pressure and high temperature application. To be used as stand-alone packing or in combination with as anti-extrusion ring. In combination with pure graphite ring it presents the perfect seal for dry-running equipment like ventilators and fans.

Handle water, steam, acids and alkalis for power stations, refineries, boiler plants etc. Seats quickly, break-in without extensive adjustments. It is commonly used in steam turbines, high temperature motor-actuated valves and for high pressure, high temperature valve application in general.

**Parameter :**

Temperature	-50~+650 °C	
Pressure	Rotating	25 bar
	Reciprocating	100 bar
	Valve	200 bar
Shaft speed	20 m/s	
PH Range	2~12	
Density	1.2~1.4g/cm <sup>3</sup>	



### 1.4 Carbonized Fiber Packing with Aramid Corners

**Description :** The carbonized fiber packing with aramid corners adopts the high strength Kevlar Aramid Fiber, the carbon fiber with strong compound heat conduction, dipped by PTFE and lubricants, and is manufactured by knitting, with the advantages as high strength, good heat conduction, and small friction coefficient, etc. It is especially applicable for the sealing of the high-pressure and high-speed running parts.

**Application :** It can be used in chemistry, petrochemical, medicine, sugar, paper, chemical fiber, fertilizer, oil production, ethylene, and electric power, etc.

Trade : The sealing for such industrial equipments as high-pressure pump, valve, and reacting vessel.

Be suitable for such medium as water, steam, sewage, grease, weak acid, weak base, ethanol solution, grinding media

Medium: fluid

**Parameter :**

Temperature	280 °C	
Pressure-Shaft	Rotating	25 bar-15m/s
	Reciprocating	130 bar-2m/s
	Valve	200 bar-2m/s
PH Range	2~12	
Density	1.4g/cm <sup>3</sup>	

## 2. Graphite Fiber Packing



### 2.1 Flexible Graphite Packing

**Description :** Braided from low-sulphur expanded graphite yarns, which are reinforced by cotton or glass fiber. It has a very low friction, does not damage shafts or stems. It shows good thermal and chemical resistance and high elasticity.

**Construction :** Other reinforcement materials are also available:  
 Glass fiber-----High strength, lower cost  
 Carbon fiber-----Less weight loss

Flexible Packing with Corrosion Inhibitor

Corrosion inhibitor acts as a sacrificial anode to protect the valve stem and the stuffing box.

#### Application :

This is a multi-service packing capable of a wide variety of uses throughout a plant. It can be used in valves, pumps, expansion joints, mixers and agitators in high-pressure, high-temperature hostile environments of hydrocarbon processing, pulp and paper, power stations, refineries and industries where effective sealing is vital.

Precaution: in oxidizing environment.

Recommendation : Use preferably high carbon fiber anti-extrusion packing rings.

#### Parameter :

Temperature		
Pressure-Shaft	Rotating	20 bar-20m/s
	Reciprocating	100 bar-2m/s
	Valve	300 bar-2m/s
PH Range	0~14	
Density	1.0~1.3g/cm <sup>3</sup>	



### 2.2 Graphite Packing With PTFE Impregnation

**Description :** Made of expanded flexible graphite, which are reinforced by textile fibers, with PTFE impregnation. Compared to traditional graphite packing, it has excellent cross-section tightness, structural strength and very low friction-value, wear resistant, yet gentle to shaft and stem.

**Application :** Can be used in many demanding applications, both dynamic and static. Particularly suited for high temperature and high pressure service in valves, pumps, expansion joints, mixers and agitators of pulp and paper, power station and chemical plant etc.

#### Parameter :

Temperature	+280°C	
Pressure-Shaft	Rotating	25bar-20m/s
	Reciprocating	100bar-20m/s
	Valve	300 bar-20m/s
PH Range	0~14	
Density	1.3~1.5g/cm <sup>3</sup>	



### 2.3 Expanded graphite packing reinforced by metal wire

**Description :** Braided from low-sulphur expanded graphite yarns, reinforced with Inconel wire. It retains all the inherent benefits of pure graphite packing, good thermal and chemical resistance, very low friction, the wire reinforcement also provides greater mechanical strength, Normal for valve with high pressure. Other metal materials, nickel, stainless steel etc. on request.

**Construction :** Graphite Packing with Inconel Wire and Corrosion Inhibitor  
Corrosion inhibitor acts as a sacrificial anode to protect the valve stem and the stuffing box.

**Application :** This is a multi-service packing capable of a wide variety of uses throughout a plant. It is particularly suited for use in high temperature, high pressure steam service. In addition, it can also handle most chemicals, acids and alkalis. It is excellent for use in steam turbines, high temperature motor-actuated valves and for high temperature and high pressure valve applications in general.

Precaution: in oxidizing environment.

Recommendation: May use anti-extrusion packing rings.

**Parameter :**

Temperature	-220~+550 °C (+650°C with steam)	
Pressure	Valve	400 bar
	Agitators	50 bar
Shaft speed	20 m/s	
PH Range	0~14	
Density	1.1~1.4g/cm <sup>3</sup>	



### 2.4 Graphite packing with carbon fiber corners

**Description :** Diagonally braided from expanded flexible graphite, reinforced at the corners throughout with high quality carbon fiber. This corners and body make it three times more resistant to extrusion .

**Applicatiion :** Can be used in many demanding applications, both dynamic and static. Particularly suited for high temperature and high pressure service in valves, pumps, expansion joints, mixers and agitators of pulp and paper, power station and chemical plant etc.

**Parameter:**

Temperature	-200~+550°C	
Pressure-Shaft	Rotating	25bar-20m/s
	Reciprocating	100bar-20m/s
	Valve	300 bar-20m/s
PH Range	0~14	
Density	1.3~1.5g/cm <sup>3</sup>	



## 2.5 Graphite-core Ni-wire Carbon Packing

**Description :** This product modifies the graphite packing set products, which is integrated knitted by high carbon fiber wire and the graphite wire, etc. and added Ni wire, to improve the mechanical strength of the packing set, and it is added by lubricants. This product has both the characteristics of high-carbon packing set and the good properties of graphite packing set, having such excellent characteristics as self-lubricating, high strength, high-and low-temperature resistant, corrosion-resistant, etc.

**Applicayion :** Equipment: pump, valve, mixer, and usually used for rotary equipments.

**Trade :** Such industry area as aero-space, chemistry, petroleum, and electric power generation, etc.

**Medium :** nearly all the fluid (except for the special environment, welcome calling us for the product relative technique information consultation)

### Parameter :

Temperature	600 °C	
Pressure-Shaft	Rotating	25bar
	Reciprocating	100bar
	Valve	200 bar
PH Range	2~12	
Density	1.1~1.3g/cm <sup>3</sup>	



## 2.6 Super-high Temperature & Pressure Valve Packing

**Description :** Braided from low-sulphur expanded graphite yarns with corrosion inhibitor, reinforced with Inconel wire. Each yarn is round braided with Inconel mesh again. The exclusive packing is formable, yet tough. Rated in steam service 550bar, maintains integrity in steam up to 850°C. It is a cost-effective as well as a confident choice.

**Construction :** Graphite Packing Wrapped with Aramid Mesh Gramid™-- Each yarn is wrapped with Aramid filament. The high strength Aramid

mesh make the packing 3 times more resistant to extrusion and also increase the pressure handing capabilities. Similar to Garlock 1304.

### Parameter :

Temperature	-220~+550°C (+650°C steam)
Pressure	500Bar
Speed	2m/s
PH Range	0~14
Density	1.1~1.4g/cm <sup>3</sup>

### 3. Aramid Fiber Packing



#### 3.1 Aramid Fiber Packing

**Description :** Braided from high quality Dupont Aramid/Kevlar fiber with PTFE Impregnation and lubricant additive. Extremely hard wearing. It shows good chemical resistance, high elasticity and very low cold flow. It is wear resistant but may damage the shaft if not used properly. A minimum shaft hardness of 60HRC is therefore recommended. Compared with other kinds of packing, it can resist more severe media and higher pressure. The packing is also lubricated with a silicone-based compound for quick and easy break-in.

**Construction :** Aramid fiber packing with an inert lubricant

Without PTFE impregnation, An extremely durable, highly abrasive resistant packing, It is ideal for slurry service application.

**Application :** It is a universal packing which can be used for pumps in all types of industry such as chemical, petrochemical, pharmaceutical, food and sugar industries, pulp and paper mills, power stations etc. It is also a durable packing able to withstand granular and abrasive applications, it is recommended for serve in superheated steam, solvents, liquefied gases, sugar syrups and other abrasive fluids.

For hot water applications it can be used un-cooled up to 160°C.

It can be used as stand-alone packing also combined with others as anti-extrusion ring.

**Parameter :**

Temperature	- 100~+280°C	
Pressure-Shaft	Rotating	25 bar - 25 m/s
	Reciprocating	100 bar - 1.5 m/s
	Static	200 bar
PH Range	2~12	
Density	~1.4g/cm <sup>3</sup>	



#### 3.2 PTFE packing with aramid corners

**Description :** Multi-yarn packing, the corners of packing are made of aramid yarns impregnated with PTFE, while the friction faces are made of pure PTFE yarns. This structure enhances the lubrication ability of aramid fiber and improves the strength of the pure PTFE.

**Construction : White PTFE & Aramid in Zebra Braided Packing**

Multi-yarn in zebra braided packing consisting of pure PTFE and aramid, lubricated with silicone oil.

**Application :** Designed for high pressure reciprocating pumps, medium speed centrifugals and valves. It can be used for general service steam, gases, solvents, mild acids, alkalis and most abrasive liquids. The packing will not stain in pulp & paper mill, pharmaceutical, food and sugar industries.

**Parameter :**

Temperature	- 100~+280°C	
Pressure-Shaft	Rotating	20 bar
	Reciprocating	100 bar
	Static	180 bar
Shaft speed	12 m/s	
PH Range	2~12	



### 3.3 gPTFE Packing with Aramid Corners

**Description :** Multi-yarn packing, the corners of packing are made of aramid yarns impregnated with PTFE, while the friction faces are made of gPTFE CGFO yarns. This structure enhances the lubrication ability of aramid fiber and improves the strength of the pure PTFE.

**Application :** Offers the strength of aramid fibers, the thermal dissipating and low friction property of graphited PTFE. Used in reciprocating pumps, mixers, reactors and valves for petrochemical, paper and sugar industries, power stations.

#### Parameter :

Temperature	-150~+280°C	
Pressure-Shaft	Rotating	25 bar
	Reciprocating	150 bar
	Static	200 bar
Shaft speed	15 m/s	
PH Range	2~12	



### 3.4 Kynol Fiber Packing

**Description :** Braided from high-performance Kynol™ (also named novoloid™ or phenolic™) fiber impregnated with special PTFE lubricant, it has very good mechanical properties combining softness and strength. The packing has natural golden sheen. Compared to ordinary aramid and PTFE

- ★ Thermal stability, low heat expansion;
- ★ High dimensional stability and superior pressure resistance even at elevated temperature;
- ★ Good process-ability, easy to cut and fit;
- ★ Outstanding chemical resistance particularly in acidic media;
- ★ Excellent resistance to organic solvents, oil and fuels...

#### PTFE Packing with Kynol™ fiber corners

It contains the advantage both PTFE and Kynol™

#### Application :

A high performance packing that is well suited to applications where graphite impregnation may not be acceptable. Suitable for abrasive media, and where contamination is not permitted. It has multiple uses in chemical plants and pulp and paper mills, and is regularly used in rotating and reciprocating pumps, washer journals, liquor pumps, refiners and digesters.

#### Parameter :

Temperature	-200~+260°C	
Pressure-Shaft	Rotating	20 bar-20m/s
	Reciprocating	100 bar-1.5m/s
	Static	200 bar-2m/s
PH Range	1~13	
Density	Appr 1.5g/cm <sup>3</sup>	



### 3.5 Nomex Fiber Packing with rubber core

**Description :** Nomex Fiber Packing with Silicon rubber core, High elastic rubber core can absorb vibration, to control leakage.

**Application :** A universal, wear-resistant packing that is nevertheless gentle to shaft surface. Designed specially for pumps, agitators, mixers, kneaders, refiners etc. It's excellently suitable for standardization in entire industrial sectors, e.g. pulp and paper, sugar production, breweries, sewage systems, water conditioning for power stations, for cooling water and abrasive river water, in turbine oil circuits, and other

areas requiring a clean, and easy-to-install packing.  
This type is especially for those machines with severe vibration.

**Parameter :**

Temperature	- 100~+280°C	
Pressure-Shaft	Rotating	25 bar-20m/s
	Reciprocating	50 bar-2m/s
	Valve	100 bar-2m/s
PH Range	1~13	
Density	Appr. 1.3g/cm <sup>3</sup>	

## 4. PTFE Packing



### 4.1 Pure PTFE Packing

**Description :** Braided from pure PTFE yarn without any lubrication. It is soft, mainly for static sealing.

**Application :** Designed for valves and lower shaft speed applications under medial pressure in food processing, pharmaceuticals, paper mills, fibre plants where high purity and corrosion resistance is required.

**Parameter :**

Temperature	- 150~+260°C	
Pressure-Shaft	Rotating	15 bar
	Reciprocating	100 bar
	Static	150 bar
Shaft speed	2 m/s	
PH Range	0~14	
Density	1.3g/cm <sup>3</sup>	



#### 4.2 Pure PTFE Packing with oil

**Description :** treated with special lubrication, designed for dynamic.

**Application :** Universal, suitable for valves, pumps and agitators in most mediums.

**Parameter :**

Temperature	- 150~+260°C	
Pressure-Shaft	Rotating	15 bar
	Reciprocating	100 bar
	Static	200 bar
Shaft speed	10 m/s	
PH Range	0~14	
Density	1.6 g/cm <sup>3</sup>	



#### 4.3 PTFE Filament Packing

**Description :** Made of sintered, highly stretched PTFE multifilament yarns LENMENS with thoroughly PTFE impregnation. The packing is then re-impregnated with a mix of PTFE emulsion during braiding operation. Good resistance to compression and to extrusion, high structural and cross-sectional density.

**Construction :** PTFE Filament Packing with Silicone Core

High red elastic rubber core can absorb vibration, to control leakage.

**Application :** Especially suited for high pressure valves, plunger pumps, agitators, mixers etc. and where contamination is not permitted.

**Parameter :**

Temperature	- 150~+260°C	
Pressure-Shaft	Rotating	20 bar
	Reciprocating	150 bar
	Static	250 bar
Shaft speed	10 m/s	
PH Range	0~14	
Density	1.75 g/cm <sup>3</sup>	

## 5. Graphited PTFE Packing



### 5.1 Graphited PTFE Packing

**Description :** Braided from graphited PTFE (gPTFE) plain yarn. The packing is soft, with low density. There are no free particles of graphite on surface and therefore no contamination can occur. Both are economical "CGFO".

**Application :** For use in pumps, valves, reciprocating and rotating shafts, mixers and agitators. Especially designed for services involving surface speeds and temperature higher than those normally specified for pure PTFE packings. Can be safely used in all chemical pump applications with the exception of molten alkali

metals, fluoride, fuming nitric acid and other strong oxidizing agents. It is also against water, steam, petroleum derivatives, vegetable oil and solvents.

**Parameter :**

Style		254A	254B
Pressure	Rotating	20 bar	15 bar
	Reciprocating	100 bar	100 bar
	Static	150 bar	200 bar
Shaft speed		16 m/s	12 m/s
Temperature	- 150~+280°C		
PH Range	0~14		
Density	1.4~1.6g/cm <sup>3</sup>		



### 5.2 Graphited PTFE Packing with oil

**Description :** Packing made of 100% gPTFE yarns, and re-impregnated with a silicone lubricant with density about 1.6g/cm<sup>3</sup>. It is also economical gPTFE packing.

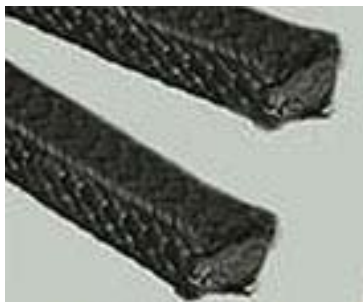
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safely used in all chemical pump applications with the exception of molten alkali metals, fluoride, fuming nitric acid and other strong oxidizing agents. It is also against water, steam, petroleum derivatives, vegetable oil and solvents.

**Parameter :**

Temperature	- 150~+280°C	
Pressure-Shaft	Rotating	15 bar
	Reciprocating	100 bar
	Static	200 bar
Shaft speed	12 m/s	
PH Range	0~14	
Density	1.65g/cm <sup>3</sup>	

## 6. Vegetable Fiber Packing



### 6.1 Cotton Packing with Graphite & oil

**Description :** Cotton Packing with Graphite & oil: Pre-impregnated cotton yarns treated with graphite, then thoroughly re-impregnated during braiding. The packing is resilient and flexible

#### **Construction : Cotton Packing with PTFE Impregnation**

Made of long cotton fiber yarn impregnated with PTFE and additives. The packing has a low coefficient of friction & is resilient and flexible. (PH: 4~10)

**Application :** Universal packing, for Rotary, reciprocating pumps, in ship building and domestic fresh water pumps. Style 224P is designed for hydraulic applications in low and medium pressure pumps and valves, and where contamination is not permitted.

#### **Parameter :**

Maximum Temperature	130°C	
Pressure-Shaft	Rotating	10 bar
	Reciprocating	20 bar
	Static	70 bar
Shaft speed	10 m/s	
PH Range	6~8	
Density	1.25g/cm <sup>3</sup>	



### 6.2 Ramie Fiber Packing

**Description :** Highest quality ramie fiber impregnated with light-colored, special PTFE and inert lubricant during square plaiting operation. It can prevent product contaminated. Low maintenance, easy-to-control, it is not harsh on shafts and stems. Material Flax is also available on request.

#### **Construction : A Ramie packing with silicon Rubber Core**

High elastic silicon core can absorb vibration, to control leakage.

**Application :** For pumps, refiners, filters and valves in the brewing and beverage industry, shipbuilding and other fields. Especially resistant to abrasive media in the paper industry.

#### **Parameter :**

Maximum Temperature	130°C	
Pressure-Shaft	Rotating	20 bar
	Reciprocating	20 bar
	Static	30 bar
Shaft speed	10 m/s	
PH Range	5~11	
Density	1.25g/cm <sup>3</sup>	



### 6.3 Ramie Packing with graphite & oil impregnation

**Description :** Ramie Packing with graphite & oil impregnation, Square braided construction, graphite coated and mineral oil lubricated throughout.

**Application :** A medium hard packing which is lubricated and graphited throughout. Extremely low frictional characteristics where minimum shaft wear is essential. Rot resistant and ideal for marine use, handling cold water, brine and cold oils.

**Parameter :**

Maximum Temperature	100°C	
Pressure-Shaft	Rotating	15 bar
	Reciprocating	15 bar
	Static	20 bar
Shaft speed	6 m/s	
PH Range	6~8	
Density	1.25g/cm <sup>3</sup>	



### 6.4 Cotton Fiber Packing with grease

**Description :** Pre-impregnated, twisted cotton yarns, intensively re-impregnated during braiding. Flexible and elastic, easy to handle, It's an economical packing for the limits of application stated. KHP-606 is treated by white vaseline, and KHP-605 is with yellow butter.

**Application :** An economical universal packing, suitable for rotating and reciprocating pumps, valves, agitators etc with water, sea-water, alcohol, etc.

**Parameter :**

Maximum Temperature	100°C	
Pressure-Shaft	Rotating	10 bar
	Reciprocating	20 bar
	Static	60 bar
Shaft speed	10 m/s	
PH Range	6~8	
Density	1.25g/cm <sup>3</sup>	

## 7. Asbestos Packing



### 7.1 Asbestos packing with PTFE

**Description :** Braided of dusted asbestos yarns impregnated with PTFE dispersion. It is a flexible, resilient, homogeneous and compact packing .Used in pumps and valves for various kinds of chemicals (acid, alkali, oil, steam, ammonia, etc),can be for petrochemical and foodstuff industries.

**Top quality lowest price!!**

**Temp.:** ≤260°C

**Specs.:** 4.0mm~50mm

**Packing:** 10kg/roll, 20kg/CTN



### 7.2 Asbestos packing with graphite

**Description :** It is a braided packing made of asbestos yarns, thoroughly impregnated piece by piece with dry graphite, and externally coated with pure graphite. It is suitable for high temperatures and high pressures, used in pumps & valves, for medium of oils, superheated steam, solvents, gas, ammonia, abrasive liquids. Metallic wire reinforced on request.

**Temp.:** ≤250~450°C

**Specs.:** 4.0mm~50mm

**Packing:** 10kg/roll, 20kg/CTN



### 7.3 Asbestos packing with inconel & rubber

**Description :** This is a packing for high temperature and high pressure, It is made of dusted asbestos yarns treated with rubber and graphite. Normal with metallic wire (copper wire, Inconel wire or stainless wire) reinforced.

**Temp.:** ≤250~550°C

**Specs.:** 4.0mm~50mm

**Packing:** 10kg/roll, 20kg/CTN



### 7.4 Dusted Asbestos Square rope

**Description :** It is made of long asbestos fiber yarn and braided into square form, extensively used as heat insulation and sealing materials on thermal installations and heat conduction systems. Metallic wire reinforced on request.

**Temp.:** ≤250~550°C

**Specs.:** 6.0mm~50mm

**Packing:** 10kg/roll, In plastic woven bag of 50kg net each

## 8. Acrylic Fiber Packing



### 8.1 Acrylic Fiber Packing

**Description :** Braided from high strength acrylic synthetic fiber pre-impregnated with PTFE, and re-impregnated during square braiding. It has excellent properties of sealing, lubricating and resistance to chemicals. This is acrylic fiber packing with oil and few PTFE

High elastic red silicone rubber core can absorb vibration, to control leakage, suitable for worn-out pumps.

**Application :** Excellent multi-service for a wide variety of uses throughout a plant. Used in pumps and valves, and can handle most chemicals except strong acid, strong alkali and strong oxidizer. Especially for the condition of middle temp. high-pressure, high-speed, and where contamination is not permitted.

#### Parameter :

Temperature	260°C	
Pressure-Shaft	Rotating	20 bar
	Reciprocating	80 bar
	Valve	100 bar
Shaft speed	20m/s	
PH Range	1~13	
Density	1.3g/cm <sup>3</sup>	

## INSULATION MATERIAL SERIES

### 1. Glass Fiber Series



#### 1.1 Glass fiber Square Rope

**Description :** Braided from texturized glass fiber yarn. It is used for the material of keeping warm, insulating against heat etc. It is the excellent substitute for asbestos. Rectangle section is also ok. Metallic wire reinforced on request. For sealing coke furnace, stove and boiler burner, chimney door, pump and valve, exchanger.

#### E/C-Glassfiber Square rope

**Temp.:** 550°C

**Specs.:** 5.0mm~50mm

**Packing:** In CTN or plastic woven bag of 20kg net each

Size		Net weight per coil	Length per coil (Approx.)
inch	mm.	Kg.	m.
1/4	6.4	5	149
5/16	8	5	100.5
3/8	9.6	5	72
1/2	12.7	10	83
5/8	16	10	66
3/4	19.2	10	42
7/8	22.4	10	29
1	25.4	10	23.5
1-1/8	28.6	10	20.5
1-1/4	32	10	15
1-1/2	38.1	10	12
1-3/4	44.5	10	8.5
2	50.8	10	6.5



#### 1.2 Twisted Glass fiber Rope

**Description :** Twisted from texturized E/C-glassfiber yarn, used in low pressure in ingot moulds, pipe insulation, thermal shields.

**Temp.:** 550°C

**Specs.:** 3mm~30mm

**Packing:** In CTN or plastic woven bag of 20kg net each



### 1.3 Graphited Glass fiber Rope

**Description :** Round Braided from texturized glass fiber yarn treated with graphite. It is used for the material of keeping warm, insulating against heat etc. It is the excellent substitute for asbestos. For sealing coke furnace, stove and boiler burner, chimney door, pump and valve, exchanger.

**Temp.:** 550°C

**Specs.:** 5.0mm~50mm

**Packing:** In CTN or plastic woven bag of 20kg net each

Size		Net weight per coil	Length per coil (Approx.)
inch	mm.	Kg.	m.
1/4	6.4	5	181.5
5/16	8	5	120
3/8	9.6	5	77.5
1/2	12.7	10	89.5
5/8	16	10	70
3/4	19.2	10	44
7/8	22.4	10	33.5
1	25.4	10	28
1-1/8	28.6	10	22.5
1-1/4	32	10	18
1-1/2	38.1	10	12
1-3/4	44.5	10	9.5
2	50.8	10	6.5



### 1.4 Glass fiber Welding Blanket

**Description :** Welding blanket is made of fiberglass fabric. It is an ideal replacement for asbestos product used for thermal insulation and heat protection. It will not burn, rot, mildew or deteriorate and resist most acids. Welding blankets are designed to help protect employees from welding hazards. From safety blankets to protect equipment and personnel near welding operations, to hand and sleeve

protectors to protect your employees while welding, can help improve the safety of your welding operation.

Various treatments are available such as graphite coating, vermiculite coating and heat treatment. With these treatments, the welding blankets give higher temperature resistance, reduce the tendency for molten metal to penetrate the cloth and improve abrasion.

#### Specifications:

**Light duty welding blankets:** 12.7oz, 18oz

**Medium duty welding blanket:** 20oz, 24oz, 32oz

**Heavy duty welding blanket:** 36oz, 52oz

**Size:** 3x3ft, 4x4ft, 5x5ft, 6x6ft, 6x8ft, 8x8ft

**Size:** 1mx1m, 1.2mx1.2m, 1.8mx1.2m, 1.8mx1.8m



### 1.5 Glass fiber Felt

**Description :** Fiberglass needle felt, This product uses E glass fiber roving as the raw materials while each strand is chopped into a 2~3 inch 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 is characterized by heat-resistance, tensile strength, tenacity fireproofing, anti-erosion, and good electrical insulation. The adoption of extreme tiny E glass fiber followed by particular needling leads to numerous thin holes with the fiberglass blanket so as to provide heat-insulation and sound-absorbency.

#### Specifications :

Thickness	3mm-50mm
Density	100 kg/m <sup>3</sup> -200 kg/m <sup>3</sup>
Width	below 1350 mm
Thermal Conductive	0.0300 kcal/m hr°C
Heat Resisting	below 550°C

#### Applications :

- Subsequent to being dipped into the resin and next processed into lath shapes, the fiberglass blanket is applicable to building construction and cauzs 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 provided 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, thermal insulation materials of industrial boiler sand being able to replace expensive fully-importing asbestos goods.



### 1.6 Fire Blanket

#### Product Information :

1. Fire Blanket is a simple and convenient fire-control instrument outfitted for enterprises, stores, vessels, autos and civil buildings, and especially useful in household kitchens, hotels, recreational facilities and gas stations to block the fire spreading and provide shield for the safe evacuation.

2. Having been specially treated, it is a type of fiberglass twill texture which is as soft and compact as satin with its thickness of 0.43mm, and is an most ideal and effective outer protective layer which can be used to wrap the objects with the rough surface and reused for several times when it is in good condition.

3. Our product is packed in red PVC box or bag with the size of 1000×1000mm; 1200×1000mm; 1200×1200mm; 1500×1000mm; 1500×1200mm; 1500×1300mm; 1500×1500mm; 1800×1200mm; 1800×1300mm; 1800×1500mm; 1800×1800mm. Please read the instructions carefully before you use and install the blanket in the location, which is easy to access.

4. Please contact us if you are require more details.



### 1.7 Silicone Rubber Coated Fiberglass Cloth

#### Product Information :

Our company's silicon rubber compound cloth has form of one side and two-side. The working temperature is 250°C and working pressure is 300 KPa. It can bear 280°C in a short term of 16 hours. The one-side silicon rubber cloth is mainly used for the outside of the non-metallic compensator.

1. Silicon rubber is a kind of fluorine macromolecule elasticity shell, which has the performance of fine high temperature-resistance and insulation and longtime aging-resistance. After compounded with fiberglass, it is a kind of high function, useful and new material.
2. It has special characteristic, such as high temperature-resistance, ventilate-resistance, and fine high temperature-resistance, and it is very soft and tenacious, so it can apply in the fields of aerospace, chemistry and big electrical equipments, machinery and metallurgy.
3. Store in 0-40°C, relative humidity <75% area. Being apart from a hot source for at least one meter. Preven from the thing which is bad for rubber. Be careful during the transport.
4. The product color can be divided into red, silver grey color, black. It also can be producted according to customers requirment.
5. The packing method: use the snake skin bag to pack the cloth then fix with PP tape.

#### 6. Specification :

Item	Thickness(mm)	Breakdown strength (N/50MM)		Broken Intensity	Peeling strength N/M	Flame retardant property (°C)	Density g/m <sup>2</sup>
		Radial	Zonal				
KHC-0.3	0.30+0.03	≥1800	≥1400	≥1.2	≥450	250	470+50
KHC-0.5	0.50+0.05	≥2000	≥1600	≥2.0	≥450	250	640+60
KHC-1.1	1.10+0.10	≥3800	≥3400	≥2.6	≥450	250	1700+170
KHC-1.5	1.50+0.10	≥3200	≥2800	≥3.0	≥450	250	2300+230



### 1.8 Texturized Glass Fiber Rope

**Description :** Round Braided from texturized glass fiber yarn, with glassfiber or ceramic fiber core. It is used for the material of keeping warm, insulating against heat etc. It is the excellent substitute for asbestos. Metallic wire reinforced on request. For sealing coke furnace, stove and boiler burner, chimney door, pump and valve, exchanger.

**Temp.:** 550°C

**Specs.:** 5.0mm~50mm

**Packing:** In CTN or plastic woven bag of 20kg net each

Size		Net weight per coil	Length per coil (Approx.)
inch	mm.	Kg.	m.
1/4	6.4	5	181.5
5/16	8	5	120
3/8	9.6	5	77.5
1/2	12.7	10	89.5
5/8	16	10	70
3/4	19.2	10	44
7/8	22.4	10	33.5
1	25.4	10	28
1-1/8	28.6	10	22.5
1-1/4	32	10	18
1-1/2	38.1	10	12
1-3/4	44.5	10	9.5
2	50.8	10	6.5



### 1.9 Glassfiber Knitted Rope

**Description :** Texturized fiberglass knitted rope with fiberglass core is an excellent substitute for asbestos lagging rope, can be treated with graphite on request, used as filling of grooves, sealing of oven, furnace or boiler door.

**Temp.:** 550°C

**Specs.:** 5mm~30mm

**Packing:** In CTN or plastic woven bag of 20kg net each

Size		Net weight per coil	Length per coil (Approx.)
inch	mm.	Kg.	m.
1/2	12.7	5	73
5/8	16	5	56.5
3/4	19.2	5	48.5
7/8	22.4	5	38
1	25.4	5	31.5
1-1/8	28.6	5	27
1-1/4	32	5	24
1-1/2	38.1	5	18
1-3/4	44.5	5	13.5
2	50.8	5	10



### 1.10 Texturized Glassfiber Tape

**Description :** Braided with the E/C-fiberglass, had good insulation and heat resistance, extensively apply to building , waterproof , antiseptic and wrapping up the coil of electrical machinery and electrical apparatus. It is an excellent substitute for asbestos tape. It can be with self-adhesive on one side. Dyed or metallic wire reinforced are also available.

**Temp.:** 550°C  
**Thickness:**0.8mm~5.0mm  
**Width:**20mm~300mm

**Packing:**  
 25m or 30m/roll  
 In CTN or plastic woven bag of 20kg net each



### 1.11 Fiberglass Lagging Rope

**Description :** Same with Ceramic fiber lagging rope, Outside over braided with fiberglass yarns, inside filled with cut strip of ceramic fiber blanket. Over braided mesh can be both open mesh and close mesh, with low density. It is an excellent substitute for asbestos rope Thermal insulation and sealing for stove, burner, chimney door sealing, Seal for heat exchanger, kiln car.

**Specification :**

Diameter (mm)	Outside mesh	Working Temperature
15~50	Open	650°C
10~50	Close	650°C

**Packing:**  
 In plastic woven bag of 20kg net each;  
 In carton of 20kgs net each.



### 1.12 Texturized Glass fiber Cloth

**Description :** Made of continuous filament texturized yarns, they demonstrate a better insulating properties and greater fullness. Insulating properties depend upon conductivity and radiation and these are influenced by the fabric construction. Normal for removable insulation covers, fiber blankets, fire curtains, expansion joints and flue ducts. KHF-101M&KHF-101Lis texturized glassfiber cloth with Aluminium.

Style No.	Thickness (mm)	Weight (g/m <sup>2</sup> )	Weight (oz/y <sup>2</sup> )	Width (m)	Weave
KHF-101A	0.80	600	18	1.0-1.8	Plain
KHF-101B	1.00	800	24	1.0-2.0	Plain
KHF-101C	1.50	1000	30	1.0-2.0	Plain
KHF-101D	2.00	1250	36	1.0-2.0	Plain
KHF-101E	3.00	1800	52	1.0-2.0	Plain

**Temp.:** 550°C



### 1.13 Fiber glass sleeve

**Description :** Made from texturized fiberglass yarn by a tubular braiding to obtain an extremely elastic and flexible sleeve. They are capable of operating at a continuous temperature of 550°C degrees. Their excellent insulation capabilities make them a good choice as economical hose and cable protection where molten splash is not a factor. For high temperature resistant electrical cable, wire covering, and high temperature pipe wrapping.

**Temp.:** 260°C  
**Wall thickness:** 1.0mm~3.0mm  
**Inner Diameter:** 10mm~100mm

**Packing:**

25m or 30m/roll  
 In CTN or plastic woven bag of 20kg net each



### 1.14 Glassfiber Ladder Tape

Product Information:

**Item:**KHF-204

**Specification:**

Description:Texturized fiberglass ladder is specially used in flange jointing with bolts

**Temp.:** 550°C  
**Thickness:**0.8mm~5.0mm  
**Width:**20mm~300mm

**Packing:**

25m or 30m/roll  
 In CTN or plastic woven bag of 20kg net each



### 1.15 Glass fiber Tadpole Tape

**Description :** Texturized fiberglass tadpole is effective sealing on light metal flanges, suitable for applications where closures rest on the packing bulb. It can be treated with graphite on request.

**Temp.:** 550°C  
**Thickness:** 1.6mm~5.0mm  
**Width:** 20mm~200mm  
**Bulb Dia.:** 10mm~30mm

**Packing:**  
 25m or 30m/roll

In CTN or plastic woven bag of 20kg net each



### 1.16 Glass fiber Tape with Aluminium

**Description :** The aluminium foil coated on the surface of fiberglass tape, it is used as heat insulating materials and an excellent substitute for asbestos tape. Metallic wire reinforced are also available.

**Temp.:** 550°C  
**Thickness:**0.8mm~5.0mm  
**Width:**20mm~300mm

**Packing:**  
 25m or 30m/roll

In CTN or plastic woven bag of 20kg net each

## 2. Ceramic Fiber Series



### 2.1 Ceramic Fiber Yarn

**Description :** It is twisted from ceramic fiber strands, And used as heat insulation material in thermal installations and heat conducting systems, Also can be extensively made into all kinds of ceramic fiber textiles and an excellent substitute for asbestos. Twisted ceramic fiber yarn with metallic wire (Inconel or S.S) style KHM-102A is also available.

**Specification :**

Style	Tex	Reinforcement	Working Temperature
KHM-102	330~2500	Fiberglass	650°C
KHM-102A	330~2500	S.S. wire	1260°C

**Packing:**

In plastic woven bag of 20kg net each;  
In carton of 20kgs net each.



### 2.2 Twisted Ceramic fiber Rope

**Description :** Twisted by ceramic fiber yarns and used as heat insulation materials and an excellent substitute for asbestos rope. Used in expansion joints, seals for stoves and ovens, also as bulbs in tadpole cauzs. KHO-110 is twisted ceramic rope with metallic wire.

**Specification :**

Style	Dia. (mm)	Reinforcement	Working Temperature
KHO-109	5~50	Fiberglass	650°C
KHO-110	5~50	S.S. wire	1260°C

**Packing:** 10kg/roll;

In plastic woven bag of 20kg net each;  
In carton of 20kgs net each.  
Product Name: ceramic fiber square rope



## 2.2 Ceramic Fiber Paper

**Description :** Ceramic fiber paper uses ceramic fiber spraying cotton and is made through washing and adding bonding agent under vacuum condition. They have high intensity, good flexibility and strong scissoring performance and the ideal material for producing high temperature washer, airproofing, heat insulation and insulation. Temperature level is 1050-1260°C.

### Characteristics :

Low coefficient of heat-conduction ratio, low thermal capacity, Thermal shock resistance.  
High quality of flexibility and tear resistance. Not include asbestos, erosion resistance.  
High quality of insulation and sound insulation.  
Easiness of mechanical processing.  
Tough texture and high quality of compression resistance.

### Application range :

Insulation, seal and safety materials for industrial need.  
Insulation and heat insulation materials for electrical thermal equipments.  
Insulation and heat insulation for equipments and electro thermal components.  
Heat insulation materials for automobile.

Categorised temperature°C		1260
Density of volume (kg/m <sup>3</sup> )		170±15
Content of organic matter		6—8
Coefficient that heat conduct under average temperature	200°C	0.075-0.085
	400°C	0.115-0.121
	600°C	0.165-0.175
Main chemical compositions (%)	Al <sub>2</sub> O <sub>3</sub>	47-49
	Al <sub>2</sub> O <sub>3</sub> +SiO <sub>2</sub>	98-99
Standard specification of the products		Thickness:0.5~6mm Width:610/1220mm Length:20m~80m The special specification can be made to order according to user's enquiry



## 2.3 Ceramic fiber lagging rope

**Description :** Outside over braided with fiberglass yarns, inside filled with cut strip of ceramic fiber blanket. Over braided mesh can be both open mesh and close mesh, with low density. It is an excellent substitute for asbestos rope Thermal insulation and sealing for stove, burner, chimney door sealing, Seal for heat exchanger, kiln car.

### Ceramic fiber lagging rope

#### Specification:

Diameter (mm)	Outside mesh	Working Temperature
15~50	Open	650°C
10~50	Close	650°C

**Packing:** 10kg/roll;

In plastic woven bag of 20kg net each;

In carton of 20kgs net each.



## 2.4 Ceramic fiber blanket

**Description :** Ceramic fiber blanket is a new kind fire-resistant heat insulation material with white color, standard dimension and the function of fire-resistance, heat insulation and heat preservation. Without any bonding agent, good tensile strength, tenacity and fiber structure can be kept while using under the normal and oxidation condition. Temperature level is 1050-1430°C.

### Characteristics:

Low thermal conductivity and low heat storage. Excellent thermal stability and thermal shock resistance. Excellent erosion resistance. Excellent heat insulation, fire proofing and processing function.

### Application Range:

Industrial furnace, heaters, inside wall of high temperature tube. Electric power furnace, nuclear power station and heat insulation.

Fire proofing and heat insulation of high building.

Product name Item	COM	ST	HP	HAA	HZ	
Specification temperature(°C)	1100	1260	1260	1360	1430	
Working temperature(<°C)	1000	1050	1100	1200	1350	
Color	White	Pure	Pure	Pure	Pure	
Physical volume density (kg/m <sup>3</sup> )	96 128	96 128	96 128	128 160	128 160	
Permanent line constringency (%) ( Heat preservation 24 hours, physical volume density 128/ m <sup>3</sup> )	-4 (1000°C)	-3 (1000°C)	-3 (1100°C)	-3 (1250°C)	-3 (1350°C)	
Rate of thermal conductivity ( w/ m.k) ( Physical volume density 128 kgs/ m <sup>3</sup> )	0.09(400°C) 0.16(800°C)	0.09(400°C) 0.16(800°C)	0.09(400°C) 0.16(800°C) 0.20(1000°C)	0.12(600°C) 0.20(1000°C)	0.16(800°C) 0.20(1000°C)	
Tensile strength ( MPa) ( Physical volume density 128 kgs/ m <sup>3</sup> )	0.04	0.04	0.04	0.04	0.04	
The chemistry composition(%)	Al <sub>2</sub> O <sub>3</sub>	40-44	45-46	47-49	52-55	39-40
	Al <sub>2</sub> O <sub>3</sub> +SiO <sub>2</sub>	95-96	96-97	98-99	99	-
	Al <sub>2</sub> O <sub>3</sub> +SiO <sub>2</sub> +ZrO <sub>2</sub>	-	-	-	-	99
	ZrO <sub>2</sub>	-	-	-	-	15-17
	Fe <sub>2</sub> O <sub>3</sub>	<1.2	<1.0	0.2	0.2	0.2
Na <sub>2</sub> O+K <sub>2</sub> O	≤0.5	≤0.5	0.2	0.2	0.2	
Size (mm)	In common use specification:7200×610×10-50 Other specifications manufacture according to the customer request					



## 2.5 Ceramic Fiber Board

**Description :** Ceramic fiber board uses non-brittle material, therefore it has good tenacity, high compressive strength, good flatness and mechanical process ability. Temperature is 1050°C, 1260°C, 1430°C and it is the ideal material for wall liner and back lining of the heating equipment.

### Characteristics :

Flat surface  
 Equal volumetric weight and thickness  
 Excellent mechanical and structure strength  
 Low thermal conductivity and low shrinkage  
 Air-current resistant washing

### Typical application :

Heat insulation for back lining of high temperature industrial furnace

Heat surface lining materials for porcelain furnace, heat treatment furnace of mechanical and metallurgy and other industrial furnaces.

Product name Item	COM	ST	HP	HAA	HZ	
Specification temperature(°C)	1100	1260	1260	1360	1430	
Working temperature(<°C)	<1000	1050	1100	1200	1350	
Color	White	White	White	White	White	
Physical volume density (kg/m <sup>3</sup> )	260 320	260 320	260 320	260 320	260 320	
Rate of line (%) (24h,Density:320kg/m <sup>3</sup> )	-4 (1000°C)	-4 (1000°C)	-4 (1100°C)	-4 (1200°C)	-4 (1350°C)	
Rate of thermal conductivity(w/m.k) (Density: 285kg/m <sup>3</sup> )	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)	
Tensile strength (Mpa) (strength10%)	0.5	0.5	0.5	0.5	0.5	
Chemistry composition(%)	Al <sub>2</sub> O <sub>3</sub>	40-44	45-46	47-49	52-55	39-40
	Al <sub>2</sub> O <sub>3</sub> +SiO <sub>2</sub>	95-96	96-97	98-99	99	-
	Al <sub>2</sub> O <sub>3</sub> +SiO <sub>2</sub> +ZrO <sub>2</sub>	-	-	-	-	99
	ZrO <sub>2</sub>	-	-	-	-	15-17
	Fe <sub>2</sub> O <sub>3</sub>	<1.2	<1.0	0.2	0.2	0.2
	Na <sub>2</sub> O+K <sub>2</sub> O	≤0.5	≤0.5	0.2	0.2	0.2
Size (mm)	Common specification: 600*400*10-5 ; 900*600*20-50 other made according to customer's requirements					



## 2.6 Ceramic Fiber Square Rope

**Description :** Braided by ceramic fiber yarns and used as heat insulation materials and an excellent substitute for asbestos rope. Normal for stove, burner, heat exchanger, kiln car, chimney door sealing. KHR-105A is braided ceramic square rope with metallic wire.

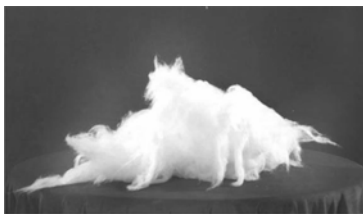
### Specification :

Style	Size(mm)	Reinforcement	Working Temperature
KHR-105	5x5~50x50	Fiberglass	650°C
KHR-105A	5x5~50x50	S.S. wire	1260°C

**Packing:** 10kg/roll :

In plastic woven bag of 20kg net each;

In carton of 20kgs net each.



## 2.7 Ceramic Fiber Bulk

**Description :** Ceramic Fiber Bulk is made from electrically melted high purity AluminoSilicate (and Zirconia), it's resistant to chemical attack.

### Characteristic :

- Excellent thermal and chemical stability
- Excellent thermal shock resistance
- Resilient up to high temperatures
- Light weight, low heat storage capacity
- Low thermal conductivity
- Excellent sound absorber
- Asbestos free

### Application :

- Raw material of secondary ceramic fiber products e.g. blanket, paper, board, shapes
- Expansion joint seal
- Temporary repair of insulation
- Loose insulating fill for complex spaces and areas where access is difficult
- Fiber reinforcement for insulating concretes and cements

### Specification :

Classification Temperature: 1000°C, 1260°C, 1360°C, 1425°C

**Packing :** 10 / 15 Kg/20kg/bag



## 2.8 Ceramic Fiber Cloth

**Description :** It is used as heat insulating materials and an excellent substitute for asbestos cloth. KHF-502 Ceramic fiber cloth with metallic wire (inconel or stainless steel) are also available. Used as heat insulation curtain, large area thermal insulation. Radiant heat shielding, flexible fabric expansion joints

### Specification :

Thickness(mm)	Width(mm)	Reinforcement	Working Temperature
1.5~5.0	1000	Glassfiber	650°C
1.5~5.0	1000	Stainless steel	1260°C

**Packing:** 30m/roll : In plastic woven bag



## 2.9 Ceramic Fiber Tape

**Description :** It is used as heat insulating materials and an excellent substitute for asbestos tape. KHF-602 Ceramic fiber tape with metallic wire (inconel or stainless steel) are also available. Suitable for High temperature resistant electrical cable, wire covering and pipe wrapping

### Specification :

Thickness(mm)	Width(mm)	Reinforcement	Working Temperature
1.5~5.0	10-750	Glassfiber	650°C
1.5~5.0	10-750	Stainless steel	1260°C

**Packing:** 30m/roll;  
In plastic woven bag of 20kg net each;  
In carton of 20kgs net each.



## 2.10 Ceramic Fiber Rope

**Description :** Braided by ceramic fiber yarns and used as heat insulation materials and an excellent substitute for asbestos rope. Normal for stove, burner, heat exchanger, kiln car, chimney door sealing. KHR-105A is ceramic fiber square rope with metallic wire, KHR-106A is ceramic fiber round rope with metallic wire

### Specification :

Style	Size(mm)	Reinforcement	Working Temperature
KHR-105&KHR-106	5x5~50x50	Glassfiber	650°C
KHR-105A&KHR-106A	5x5~50x50	Stainless steel	1260°C

**Packing:** 10kg/roll :  
In plastic woven bag of 20kg net each;  
In carton of 20kgs net each.

### 3. Asbestos Series



#### 3.1 Dusted Asbestos Yarn

**Description :** Composed by more than 75% asbestos fiber and small than 25% cotton or other fiber, with color white. According to quality grade of asbestos fiber, it can be divided into: C grade, B grade, A grade, AA grade, AAA grade, and AAAA grade, different grade has different temperature resistance and tensile strength, the yarn can be reinforced by glass fiber yarn, brass yarn, and stainless steel yarn according to requirements.

**Temp.:** ≤250~550°C

**Specification :** 500~3000tex---1~5P

**Packing:** In plastic woven bag of 20~30kg net each



#### 3.2 Dusted asbestos Cloth

**Description :** Interwoven from dusted asbestos warp and weft yarns, it is used as thermal insulating materials for boilers and pipe lines etc. used in factories, shipping, power stations and steamers. Metallic wire reinforced on request.

**Temp.:** ≤250~550°C

**Width:** 1000mm~1200mm

**Thickness:** 1.5mm~5.0mm

**Packing:** In plastic woven bag of 50kg net each



#### 3.3 Twisted Dusted Asbestos rope

**Description :** Twisted with two or more strands of long asbestos fiber yarn, Extensively used as caulking, sealing and heat insulation materials on thermal installations and heat conduction systems operated at temperatures up to 250-550°C. Metallic wire reinforced on request.

**Twisted Dusted Asbestos rope**

**Temp.:** 250~550°C

**Specs.:** Φ6.0mm~50mm

**Packing:** 10kg/roll, In plastic woven bag of 50kg net each



#### 3.4 Dusted asbestos lagging rope

**Description :** Outside over braided with dusted asbestos open mesh, inside filled with ceramic or other fiber. It is a comparatively light weight thermal insulating material. Possessing good elasticity and flexibility, It is suitable for use at temperature up to 650 degree C on heating pipelines with many flexures and subjects to constant vibration.

**Temp.:** ≤650°C

**Specification :** 12mm~50mm

**Packing:** 10kg/roll, In plastic woven bag of 50kg net each



### 3.5 Dust Free Asbestos Cloth

**Description :** Interwoven from dust free asbestos warp and weft yarns, it is used as thermal insulating materials for boilers and pipe lines etc. used in factories, shipping, power stations and steamers. Metallic wire reinforced on request.

**Temp.:** ≤550°C

**Width:** 1000mm~1200mm

**Thickness:** 1.5mm~5.0mm

**Packing:** In plastic woven bag of 50kg net each



### 3.6 Dust Free Asbestos Tape

**Description :** Interwoven from dust free asbestos warp and weft yarns, it is used as thermal insulating materials for boilers and pipe lines etc. Metallic wire reinforced on request.

**Temp.:** ≤550°C

**Width:** 20mm~200mm

**Thickness:** 1.5mm~5.0mm

**Packing:** 25m or 30m/roll, In plastic woven bag of 50kg net each



### 3.7 Dust Free Asbestos Tape With Aluminium

**Description :** Dust free asbestos tape with Aluminium foil on one side, it is used as thermal insulating materials for boilers and pipe lines etc., suitable for fireproof.

**Temp.:** ≤550°C

**Width:** 20mm~200mm

**Thickness:** 1.5mm~5.0mm

**Packing:** 25m or 30m/roll, In plastic woven bag of 50kg net each



### 3.8 Dust Free Asbestos Square Rope

**Description :** It is made of dust free asbestos fiber yarn and braided into square form, extensively used as heat insulation materials on thermal installations and heat conduction systems. Metallic wire reinforced on request.

**Temp.:** ≤550°C

**Specs.:** 6.0mm~50mm

**Packing:** 10kg/roll, In plastic woven bag of 50kg net each



### 3.9 Dusted Asbestos Tape

**Description :** Interwoven from dusted asbestos warp and weft yarns, it is used as thermal insulating materials for boilers and pipe lines etc. Metallic wire reinforced on request.

**Temp.:** ≤250~550°C

**Width:** 20mm~200mm

**Thickness:** 1.5mm~5.0mm

**Packing:** 25m or 30m/roll, In plastic woven bag of 50kg net each

## 4. Carbon Fiber Series



### 4.1 Carbon Fiber Tape

**Specification :**

Thickness : 1.5mm~5.0mm

Width : 20mm~200mm

Refractoriness : 450°C

## GASKET SERIES

### 1. Spiral Wound Gaskets



**Description :** KHG-103 Spiral-Wound gasket is formed of V-shaped metallic stripe and soft non-metallic filler by means of piled, spiral wound and connected its end and beginning by dot welded. Depend on its excellent compression resilience it is suitable for sealing spots where the alteration of temperature and pressure are frequent. It can be used as the static sealing element of pipe, valve, pump, thermal exchange, condensing tower, plain hole and man hole of flange, etc. It has been widely applied in the fields of petrochemical, mechanical manufactory, power station, metallurgy, shipbuilding, medical and pharmaceutical nuclear power station and navigation, etc.

**Application :** We can produce according to ASME, BS, JIS and EN(DIN) standards or client request.

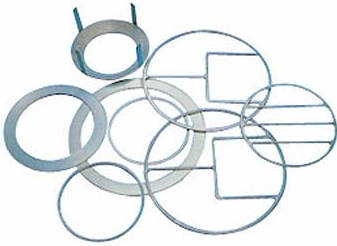
Products	Style	Flange	For example
Basic type SWG	103	Tongue and Groove	304/PTFE
SWG with inner ring	103 IR	Male and Female	304 304/FG
SWG with outer ring	103 CR	Raised face	304/ASB CS
SWG with inner & outer rings	103 IC	Flat face	304 304/FG CS
SWG for heat exchanger	103 H	Heat exchanger	304/FG with 1 bar of DJ
Special shape SWG	103S	Special	Oval

### Material :

Style	Structure	Hoop material	Filler material	Inner & outer ring material	Normal thickness (mm)	
					Gasket	Inner & outer ring
600	Without rings	304(L);316(L) 321;317L	Graphite, PTFE, Asbestos Non-asb Mica, etc	CS, 304(L), 316(L), 321;317L 31803 Ti,Ni INC Hast. Monel Zr <sub>7</sub> O <sub>2</sub>	3.2	2
600 IR	With inner ring	31803 Monel, Ti,Ni			4.5 (0.175")	3 (1/8")
600 CR	With outer ring	INC Hast.C/B			6.4	4
600 IC	With inner & outer rings	Zr <sub>7</sub> O <sub>2</sub> etc.				

Color cord as ASME B16.20 on request.

## 2. Double Jacketed Gasket



**Description :** KHG-102 Double Jacketed Gasket is made from graphite, ceramic, non-asbestos etc. filler covered with thin metal jacket, such as stainless steel, carbon steel, copper etc. By their sealing efficiently, provide outstanding resilience, while the metal jacket guarantees excellent sealing and protects the filler against pressure conditions, fluctuating temperatures and corrosion.

**KHG-102 Double Jacketed Plain Gasket**  
**KHG-102A Double Jacketed corrugated Gasket**  
**KHG-102B with Special Shape**

### Application :

KHG-102 is particularly suitable for sealing flat surfaces of heat exchanges, gas pipes, cast iron flanges, cylinder heads of engines as well as for boilers and other vessels.

### Materials for the insert:

Flexible Graphite, ASB, Non-asbestos, ceramic fiber, mica etc

KHG-102 is particularly suitable for sealing flat surfaces of heat exchanges, gas pipes, cast iron flanges, cylinder heads of engines as well as for boilers and other vessels.

By their sealing efficiently, provided by exerting strong pressure on circular rims of the flanges, metal-jacketed gaskets can stand up to 30% deviation from the initial thickness, which is very useful in case of irregular or faulty flange rims. The chemical compatibility of the metal and the medium being sealed should be considered.

### Material :

Metal material	Din Material No.	Hardness HB	Temperature (°C)	Density (g/cm <sup>3</sup> )
CS/Soft Iron	1.1003/1.0038	90~120	-60~500	7.85
SS304, SS304L	1.4301/1.4306	130~180	-250~550	7.9
SS316, SS316L	1.4401/1.4404	130~180	-250~550	7.9
Copper	2.0090	50~80	-250~400	8.9
Aluminium	3.0255	20~30	-250~300	2.73

Other special metal Ti, Mon 400 are also available on request.

### Materials for the insert:

Flexible Graphite, ASB, Non-asbestos, ceramic fiber, mica etc

### 3. Reinforced Graphite Gasket



**Description :** It is made from graphite as homogeneous, reinforced by metal mesh, foil or tanged metal. It offers excellent sealing capabilities such as thermal stability, self-lubrication, corrosion resistance, without being brittle and aging etc., under extreme conditions with a longer life and less maintenance.

**Application & Properties :** Various shapes are available, used in petrochemical, mining, vessels, boilers, piping and duct, pumps and valves, flanges etc. Suitable for steam, mineral oils, heat transfer oils, hydraulic oil, fuel, water, seawater, freshwater etc.

Sheet Style	450	450P	450T	450M
Compressibility	30%	15~35%	15~35%	15~35%
Recovery	≥10%	≥20%	≥20%	≥20%
Pressure	40bar	200bar	300bar	200bar
Density g/cm <sup>3</sup>	0.7; 1.0	1.0	1.0	1.0
Temperature <sup>0</sup> C	-240~550	-240~550	-240~550	-240~550
PH	0~14	0~14	0~14	0~14

#### Graphite properties :

Item	Tolerance of density	C≥%	Tensile strength	Sulphur content	Chlorine content	Stress relaxation	Ignition loss
Industrial	±0.06 g/cm <sup>3</sup>	98	4 Mpa	<1000ppm	<50ppm	10%	2.0≤%
Nuclear	±0.05 g/cm <sup>3</sup>	99.5	5 Mpa	<700ppm	<35ppm	10%	0.5≤%



### 4. PTFE Envelope Gasket

**Description :** KHG-112 Envelope Gasket consists of rubber-asbestos, non-asbestos, rubber, corrugated stainless steel etc. cushion material encased in PTFE envelope, resulting in a gasket with the excellent corrosion resistance of PTFE and the strength and resilience of core material. It can be produced in several types to meet the most demanding applications.

**Application & Properties :** PTFE Envelope Gaskets are the ideal solution for applications demanding virtually 100% chemical resistance and where the mechanical properties of a compressed gasket material are also needed. They perform well in the food and process industries where contamination of the medium cannot be permitted, Suitable for medium strong alkalis, cryogenic fluids, oxygen, chlorine gas etc.

- Virtually 100% chemically resistant.
- Temperature range from- 200~+250°C depending on the core.
- Mechanical strength dependent on core selection.
- Pressure≤4 Mpa



### 5. Inner and outer Ring of Spiral Wound Gaskets

**Description :** It also can be processed for inner and outer ring of spiral wound gasket. We make the inner and outer ring by punched for size small then 14 inch, and by lathe for large sizes. If some material is costly, for example SS304, SS316 etc., we can make it by bending and welding with low cost, if the seal face is narrow.

**Construction :** It is machined from solid metal sheet in a round shapes and designed for high pressure, high temperature or highly corrosive applications by selecting the most suitable material. It is designed to withstand exceptionally high

assembly loads over a small area.

It also can be processed for **inner and outer ring of spiral wound gasket.**

We have enough homemade **special groover and angling machines** for making inner and outer rings of SWG with good efficiency and lower cost.

**Available :**

**Size:**

ASME B 16.20

1/2" to 24"

150LB, 300LB, 600LB

Other Sizes or standard on request

**Materials:**

Carbon Steel, with or without zinc coating

SS304, SS304L, SS316, SS316L

Other special materials:

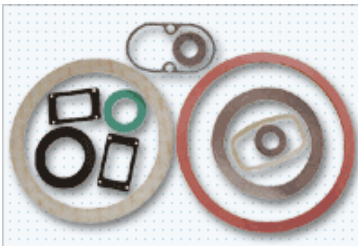
SS321, SS317L, Duplex 31803,

Ti, Ni, In, Hast. Monel, Zr. etc

**Ordering example :**

Inner and outer ring , Material: SS304

2" 150LB



### 6. Non Metallic Flat Gasket

**Description :** We can offer you various non-metallic flat gaskets, made from Asbestos, non-asbestos, Graphite, reinforced graphite, PTFE, improved PTFE, mica, and various rubber sheets etc. They are used in a large number by various industries and in a variety of applications. Available are standard and nonstandard gasket design. Non-standard means gaskets can be optional shapes and dimensions according to customer design or sample

Above Pressure & Temperature only for your reference, more specifications, please see to our data sheets or contact our engineers.

More non-metallic gasket sheets with brands Klinger, Garlock, Valqua, Gore, Econosto etc in stock.

Other special materials, Braided cloth or tape with materials Glassfiber, asbestos and ceramic are also can be made into various gaskets



## 7. PTFE Gasket

**Description :** KHG-110 PTFE Gasket is molded or skived or cut from virgin PTFE powder or compounds, sheets, rods, tube etc. It has the best chemical corrosion resistance among known plastics. Without being aging, lowest friction coefficient, wear resistance. The unloaded operating temperature range is -180~+260°C.

**Construction :** KHG-110F is PTFE gasket used filler materials such as glass fiber, carbon fiber and graphite etc. The filled PTFE has improved compression strength, better abrasion resistance, high thermal conductivity and lower thermal expansion compared with pure PTFE products.

Several types of PTFE gaskets are produced to meet the most demanding application.

**Application :** Aiflon PTFE offers a wide range of compounded products with good mechanical properties, electrical properties, thermal properties, chemical resistance, low friction coefficient and good resistance to wear. They can be mostly used in valve seats, bearings, requested to resin sliding and chemicals, elastic band for unlubricated compressors. An extended range of improved mechanical and processing properties can be additionally reached by combination of virgin PTFE and different fillers.

Different combination offers a variety of different properties described in the following table.

Filler	Improved properties
Glass	Enhance wear resistance, Chemical resistance
Graphite	Extremely low coefficient of friction Fairly good compressive strength, Good wear resistance
Carbon	Good thermal resistance, Resistance to deformation
Bronze	Enhanced compressive strength ,Good wear resistance High thermal conductivity



## 8. Ring Joint Gasket

**Description :** KHG-106 is machined from solid metal in a variety of shapes and designed for high pressure, high temperature or highly corrosive applications by selecting the most suitable material and shape. It is designed to withstand exceptionally high assembly loads over a small area, thus producing high seating stresses.

**106 PL Plain type RJG, 106 OV Oval type RJG, 106 OC Octagonal type RJG  
106 RX RX type RJG, 106 BX BX type RJG, 106 S Special type RJG**

### Materials :

Material	Code Sample	Hardness(HB)	T(°C)
Soft Iron	R23 SI	90	530
Carbon Steel	R23 CS	120	530
304(L), 321, 316(L)	R23 S304	160	750
5Cr1/2Mo	R23 F5	130	500
Copper for 640PL		50	400
Aluminium for 640PL		30	300

### Dimensions :

Standards for Ring Joints Gaskets used with flanges		
RJG Style	RJG standard	Flange standard
R	ASME B 16.20 API 6A	ANSI B 16.5 ANSI B 16.47 Series A
RX	ASME B 16.20 API 6A	API 6B
BX	API 6A	API 6BX

Can be ordered according to the detailed drawing

## SHEET SERIES



### 1. PTFE Sheet

**Description :** PTFE product includes sheet, Tube (TU450), Rod (RO450), Film (FI450) and gaskets etc., they are molded, skived or cut from 100% virgin PTFE. It has the best chemical corrosion resistance among known plastics. Without being aging, lowest friction coefficient, wear resistance. The unloaded operating temperature range is -180~+260°C.

**Construction :** The filled PTFE products are molded PTFE resin mixed with the most frequently used filler materials such as glass fiber, carbon fiber and graphite etc. The filled PTFE has improved compression strength, better abrasion resistance,

high thermal conductivity and lower thermal expansion compared with pure PTFE products.

#### Normal Dimension :

Size(mm)	Thickness(mm)	tolerance
150X150	1.0~30	±0.30~±0.50
250X250	1.5~30	±0.30~±0.50
300X300	1.5~30	±0.30~±0.50
450X450	1.5~30	±0.30~±0.50
600X600	1.5~30	±0.30~±0.50
800X800	1.5~30	±0.30~±0.50
1000X1000	1.5~30	±0.30~±0.50
1200X1200	2~30	±0.30~±0.50
1000X2000	3~35	±0.30~±0.60
1500 X 1500	3~35	±0.30~±0.60
2000 X 2000	5~35	±0.30~±0.60



### 2. Asbestos Rubber Sheet

**Description :** **KHS-100** are made from selected asbestos fibre, natural rubber, filling material and dye. A price worthy quality of dependable performance, plus adaptability to many sealing requirements makes this jointing the most economical sheet packing choice in the wide range of industrial fields.

#### Parameter :

Item	Style			
	KHS-101	KHS-102	KHS-103	KHS-104
Tensile strength≥Mpa	9	12	15	19
Aging coefficient	0.9	0.9	0.9	0.9
Loss on ignition (≤%)	30	30	28	28
Compressibility (≥%)	12±5	12±5	12±5	12±5
Recovery (≥%)	40	40	45	45
Density (g/cm <sup>3</sup> )	1.6~2.0			
Tmax : °C	200	300	400	450
Pmax : Mpa	2.3	3.5	5.0	6.0
Resistance to media	Water, seawater, steam, diluted acid & alkali, gases, alcohols, salt solutions etc. under temperature and pressure.			

Lower Grade on request

Available color: Purple, red, black, grey etc.

Available with tin steel, copper, SS304 etc. wire mesh insertion (**41\*M**)

Also available with anti-stick (**41\*S**) or graphite coating (**41\*G**)

With your logo on request

**Dimension :**

4000×1500mm; 2000×1500mm; 1500×1500mm;  
 1500×1000mm; 1270×1270mm; 3810×1270mm;  
 3810×2700mm  
 Thickness: 0.5~6mm

**3. Non-asbestos Sheet**

**Description :** Non-asbestos sheet is made from synthetic fibre, natural rubber, filling material and dye, compressed and calendered under high temperature and pressure into a sheet form. It eliminates asbestos-rubber sheet essentially and thoroughly.

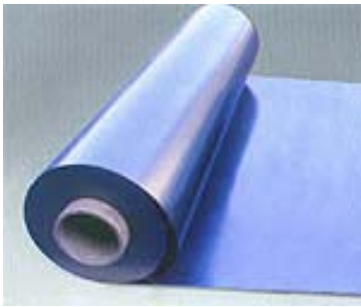
**Parameter :**

Item	Style		
	201	202	203
Density (g/cm <sup>3</sup> )	1.8~2.0	1.8~2.0	1.8~2.0
Tensile strength ≥Mpa	6	9	12.5
Compressibility(≥%)	12±5	12±5	12±5
Recovery (≥%)	40	45	45
Aging coefficient	0.9	0.9	0.9
Stress relaxation (≤%)	45	45	45
Steam Sealing	Pmax: 2~3Mpa 30min no shock	Pmax: 4~5Mpa 30min no shock	Pmax: 8~9Mpa 30min no shock
Tmax: °C	200	300	400
Pmax: Mpa	1.5	3.0	5.0
Resistance to media	Water, seawater, steam, fuel, gases, salt solutions and many other media.		

Normal colour: Black with some white, Blue or Green-white etc.  
 Available with tin steel, copper, SS304 etc. wire mesh insertion (**43\*M**)  
 Also available with anti-stick (**43\*S**) or graphite coating (**43\*G**)  
 With your logo on request.

**Dimensions :**

Thickness: 0.4~5mm  
 2000×1500mm; 1500×4000mm; 1500×1500mm; 1350×1500mm  
 1500×1000mm; 1270×1270mm; 3810×1270mm



#### 4. Graphite plate, rolled sheet

**Description :** Graphite foil is Selected from the high purity natural flake graphite. They are made through the advanced chemical treatment and mechanical procedure without fibers, binders or other additives. It offer excellent sealing capabilities under extreme conditions with a longer life and less maintenance. Nuclear Style grade:440N

**Application :** Made for packing rings and various kinds of gaskets. Cut into strip for filler of spiral wound gasket - Style **KHG-102B**.

Used widely in chemical, automotive and pump, valve industries. As a superior replacement for asbestos, new more applications are Being identified daily.

**Temperature:** -240~500°C under oxidizing environment

-240~3500°C under non-oxidizing environment

**PH Range :** 0 - 14

**Parameter :**

Item	Nuclear grade	Industrial grade
Tolerance of Density (g/cm <sup>3</sup> )	±0.05	±0.06
Carbon Content (≥%)	99.5	98/99
Tensile strength (≥Mpa)	5	4
Compressibility (≥%)	30	30
Recovery (≥%)	15	15
Sulphur Content (≤%)	700	1200
Chlorine Content (≤%)	25	50
Stress relaxation rate (%)	10	10
Ignition loss (≤%)	0.5	2.0

**Dimensions :**

Item	Sheets	Rolls
Density (g/cm <sup>3</sup> )	1.0	1.0
Length	1000, 1500 mm	30~100 m
Width (mm)	5~1000, 1500	3~1000~1500
Thickness (mm)	0.5~3	0.2~1.1

Special density, thickness, shape or grade available on request

## MATERIALS



### 1. PTFE Yarn

**Description :** For braided packing. Pure PTFE yarn without oil, Grade A,B,C can satisfy different demands. Normal Grade B & C is for core yarn.

2g/m, 3g/m, 5g/m



### 2. Graphited PTFE Yarn

**Description :** For braided packing. Graphited PTFE yarn without oil. Grade A,B,C can satisfy different demands. Normal Grade B & C is for core yarn.

2g/m, 3g/m, 5g/m



### 3. Expanded Graphite Yarn

**Description :** For braided packing. Made of flexible graphite reinforced with cotton, glass fiber, polyester fiber, carbon fiber etc.

**KHM-106**-graphite yarn with Inconel wire  
Other reinforcement materials: SS304, Copper, Nickel etc

**KHM-107**-graphite yarn impregnated with PTFE

2g/m, 3g/m, 5g/m, 10g/m



### 4. Carbonized Fiber Yarn

**Description :** For braided packing. Carbonized fiber yarn, belongs to intermediate phase between PAN and carbon fiber KHM-110, PTFE impregnated is also available.

6K, 12K



### 5. Carbonized Fiber Yarn Impregnated with PTFE

**Description :** For braided packing KHP-103. Carbonized fiber yarn, belongs to intermediate phase between PAN and carbon fiber KHM-110, PTFE impregnated is also available.

6K, 12K



### 6. Carbon Fiber Yarn

**Description :** For braided packing KHP-105. Carbon fiber yarn, Made in Japan or TaiWan. Graphite and lubricant impregnated is also available

6K, 12K



### 7. Kynol Fiber Yarn Impregnated with PTFE

**Description :** For braided packing KHP-501. 100% Kynol ®yarn (Novoloid). PTFE and Silicone oil impregnated is also available.  
Dia. 2mm, 2P



### 8. Kevlar Yarn

**Description :** For braided packing KHP-401. Kevlar® / Aramid® yarn from Dupont. PTFE and Silicone oil impregnated is also available

Type 989, DTX 6300, DEN 5680



### 9. Glassfiber Texturized Yarn

**Description :** It is produced by texturizing process with high pressure air. The products have high strength , able to bear high temperature , corrosion resistant , such advantages as insulating ability is good and fire resistant, used for keeping, the insulating material warm, insulating against heat, can make other products . It with metallic can extensively apply to friction materials. It is the excellent substitute for

asbestos. Texturized glass fiber yarn with metallic (copper wire, nickel wire or stainless wire) **KHM-114** are also available.

#### E/C-Glassfiber Texturized yarn

**Spec:** 200tex~4800tex, 20kgs/CTN

**Filament size:** 6, 8, 9,11 to 13,17µm