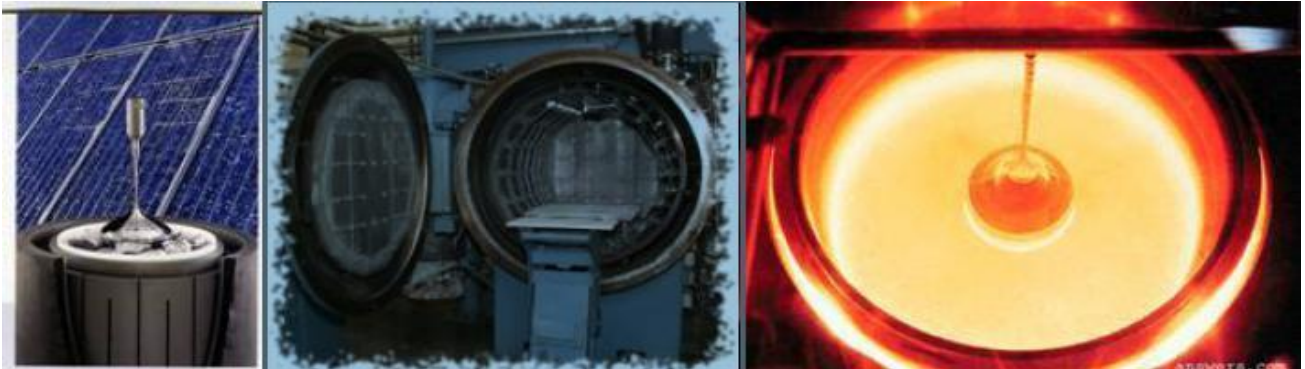
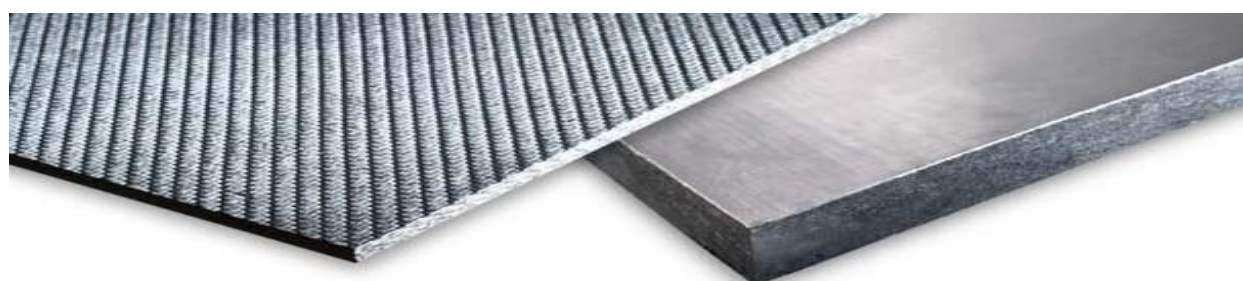
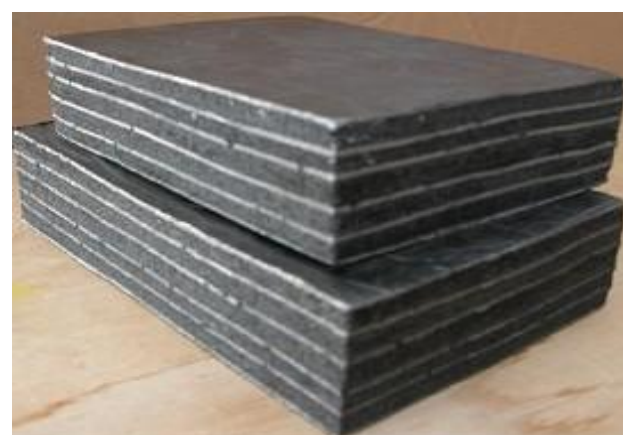


Heat Insulation Materials for various applications



Graphite Insulation Board



Graphite felt Applications include:

Aerospace: Hot isostatic process furnaces, heat treating, sintering, brazing furnaces, autoclaves.

Semi conductors: Silicon pullers, gallium arsenate producers, furnaces.

Metalizing (metal heat treating): Heat treating furnaces, sintering, brazing furnaces.

Fibers manufacturing: Carbonizing furnaces, graphitizing furnaces - induction or resistance tube furnaces.

Ceramics: Pyrolytic depositing furnaces, CVD furnaces, CVR furnaces.

Quartz/Fused Silica manufacturing: Melting/Sintering furnaces.

Float glass industry: Insulating fasteners (part of liners).

Tool manufacturing: Sintering and hot pressing.

OEM - Furnace manufacturing: High temperature furnaces.

Universities and Government Research Centers: High temperature furnaces, fuel cells.

The material is formed by interlating graphite foil, carbon felt and carbon cloth, and then subjecting then to secondary high temperature purification treatment. The material is superior in ablation resistance performance, thermal shock resistance performance, airflow washing proof performance and thermal insulation performance. It is mainly used for vacuum high pressure air quenching furnace, low pressure fritting furnace, pressurization vacuum sintering furnace etc.

GRADE		SM-HF	
		with foil	with CFC
Bulk Density(g/m ³)		0.18—0.22	0.18—0.23
Ash (ppm)		400 (max)	
Thermal Conductivity(W/m · k)		0.3	
Electric Resistance(Ω mm ² /m)		35—45	
Process Temperature(°C)		2400	
Operation Temperature	In Air(°C)	≤400	
	Vacuum(°C)	≤2200	
	Inert Gas(°C)	≤3400	
Standard size(mm)		1500 x 1000 x 40	
Length(mm)		1500—1700	
Width(mm)		1000—1250	
Thickness(mm)		20—250	

Type:

Combines graphite felt with graphite foil

It is usually two sides of graphite foil or graphite cloth inner with graphite felt also 5 layers of graphite foil with 4 layers of graphite felt or as per requests

Surface with graphite paper, inner with graphite cloth and graphite felt

Graphite Insulation Felt



Soft graphite felt Applications include:

Aerospace: Hot isostatic process furnaces, heat treating, sintering, brazing furnaces, autoclaves.

Semi conductors: Silicon pullers, gallium arsenate producers, furnaces.

Metalizing (metal heat treating): Heat treating furnaces, sintering, brazing furnaces.

Fibers manufacturing: Carbonizing furnaces, graphitizing furnaces - induction or resistance tube furnaces.

Ceramics: Pyrolytic depositing furnaces, CVD furnaces, CVR furnaces.

Quartz/Fused Silica manufacturing: Melting/Sintering furnaces.

Float glass industry: Insulating fasteners (part of liners).

Tool manufacturing: Sintering and hot pressing.

OEM - Furnace manufacturing: High temperature furnaces.

Universities and Government Research Centers: High temperature furnaces, fuel cells.

We supply two kinds of soft carbon and graphite felt, its material is PAN fiber and RAYON fiber. PAN fiber material widely applied to verify vacuum resistance furnace, induction furnace, Sintering furnace. It is excellent in thermal insulation. RAYON fiber is excellent in high-temperature thermal insulation. It is like as other Carbon felt and its density smaller, thermal conductivity smaller, it is better in thermal insulation and ablation.

Notice: when temperature is above 400°C, the product must be used in protective atmosphere or inert gas, It must be kept from moisture, press. when it is transported and stored, It can be cut free geometrical shape.

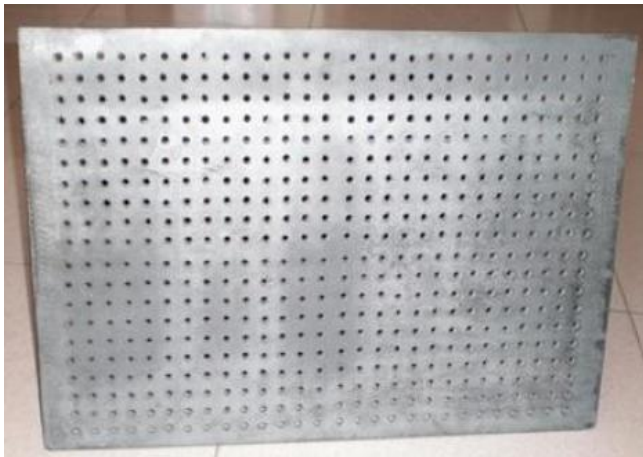
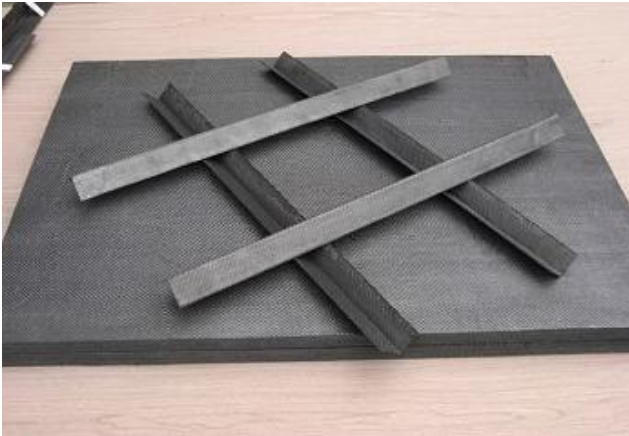
Pan graphitized felt is from pan carbon felt by graphitization under high-temperature It has very small density, high content of carbon, resists high-temperature without volatilization, good corrosion resistance, small thermal conductivity, good memory of shape maintenance It is fitful for high-temperature vacuum resistivity furnace, specially for the material of semiconductor It is also for filter material under high-corrosion.

SPECS DATA		Graphite Soft Felt
Density (g/cm ³)		0.10~0.12
C (w%)		99
Ash (w%)		0.03
Tensile Strength(N/mm ²)		0.18~0.41Mpa
Thermal conductivity (w/m.k)		0.08Max
Na (%)		0.48
P (%)		0.001
S (%)		0.008
Length (mm)		13000
Width (mm)		1200
Thickness (mm)		1/2"/1/4"/ 5mm 10mm/12mm
Processe Temp. °C		2400
Service Temp.	Atmosphere °C	≤400
	Vacuum °C	≤2400
	Inert Atmosphere °C	≤ 3200

Rayon based graphite felt After curing stereotypes and the second high-temperature processing by purification ,It's manufactured by viscose-based carbon fiber . It has good performance of Anti-ablation, thermal shock resistance, erosion resistance and long life. It is good choice for high-end materials for Electronics, semiconductor industry and vacuum industrial. C/C material has characteristics such as high strength, high stiffless, light weight, high thermal conductivity, small expansion coefficient, high temperature resistance, borrosion resistance, abrasion proof, sprkng thermal shock resistance and more. It is particularly suitable for high temperature structural part such as durance and support batch pan. Besides successful application in the aerospace domain, the material is also broadly applied to vacuum metallurgy, chemical industry new material, atomic energy, semiconductor, electronic new energy and other domains.

Products		RAYON GRAPHITE FELT
Materials		Rayon-CF
Bulk Density g/cm³		0.08~0.10
Carbon %		≥99
Thermal Conductivity (1150℃) W/m.k		0.06~0.14
Tensile Strength MPa		0.1
Crushing stress at 10% compression		5-8 (N/cm ²)
Ash %		≤0.005%
Processe Temp. °C		2500
Service Temp.	Atmosphere °C	≤400
	Vacuum °C	≤2400
	Inert Atmosphere °C	≤3200
SIZE	Length mm	16000-18000
	Width mm	1000---1300
	Thickness mm	3、 5、 8、 10

Carbon-Carbon Composite (CFC)



Carbon-carbon composite (C/C) is a lightweight, high-strength composite material capable of withstanding temperatures over 3000°C in many environments. Carbon-Carbon Composites use the strength and modulus of carbon fibers to reinforce a carbon matrix to resist the rigors of extreme environments. Commercial applications of Carbon/Carbon materials include furnace fixturing, heat shields, load plates, heating elements etc.

Carbon-carbon composite material has the following properties:

High-strength, high-hardness, small weight, high thermal conductivity, low coefficient of thermal expansion, high-temperature resistance, good corrode resistance, good wear resistance, good thermal shake resistance.

We make the composite fabric into a material with big hardness, high-density and big strength.

Size:

1000mm*1000mm*0.8mm

1000mm*1000mm*1.0mm

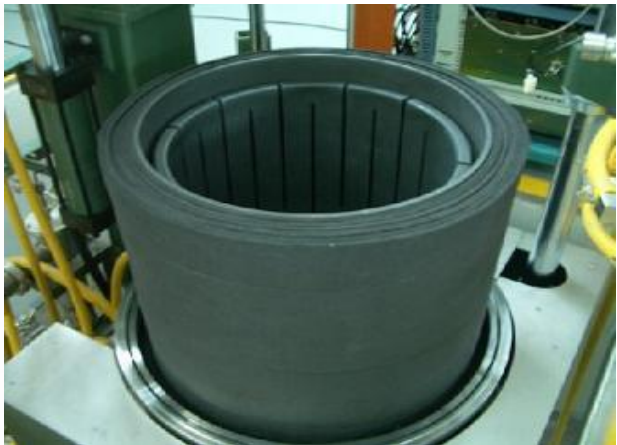
1000mm*1500mm*1.5mm

1000mm*1500mm*3.0mm

1000mm*1500mm*5.0mm~12mm

Bulk Density	g/ cm ³	1.45—1.75
Thermal Conductivity	w/m.k	0.05—0.10
Folding Strength	Mpa	200--300
Tensile Strength	Mpa	250--- 380
Elastic Modulus	Mpa	80
Carbon Content	%	99
Ash	%	≤0.05
Processing Temp.	°C	2500
Sublimation Temp.	°C	3600

Graphite Insulation Cylinders



Carbon Composite (fiber) felt cylinder, also called solid-state graphite felt tube, rigid graphite felt cylinder Main applications: it is mainly used for vacuum high-pressure gas quenching furnace, low pressure sintering furnace, pressurized vacuum sintering furnace.

The material is formed by interating graphite paper, carbon felt and carbon cloth, and then subjeeping then to secondary high temperature purification treatment. The material is superior in ablation resistance performance, thermal shock resistance performance, airflow washing proof performance and thermal insulation performance. It is mainly used for vacuum high pressure air quenching furnace, low pressure fritting furnace, pressurization vacuum sintering furnace etc.

Carbon-carbon composite material cylinder

Carbon-carbon composite material has the following properties:

High-strength, high-hardness, small weight, high thermal conductivity, low coefficient of thermal expansion, high-temperature resistance, good corrode resistance, good wear resistance, good thermal shake resistance.

We make the composite fabric into a material with big hardness, high-density and big strength.

Properties:

Density: 1.45 to 1.75g/cm³

Carbon Content : 99%

Temperature: 3,600°C maximum

Size of tube/drum:

Diameter: 200mm ~1,500mm

Thickness: 30mm~120mm

High: 300mm~2,000mm

Graphite Insulation shield



As the customer requirement to produce.

Graphite Insulation Joint Parts



As the customer requirement to produce.