

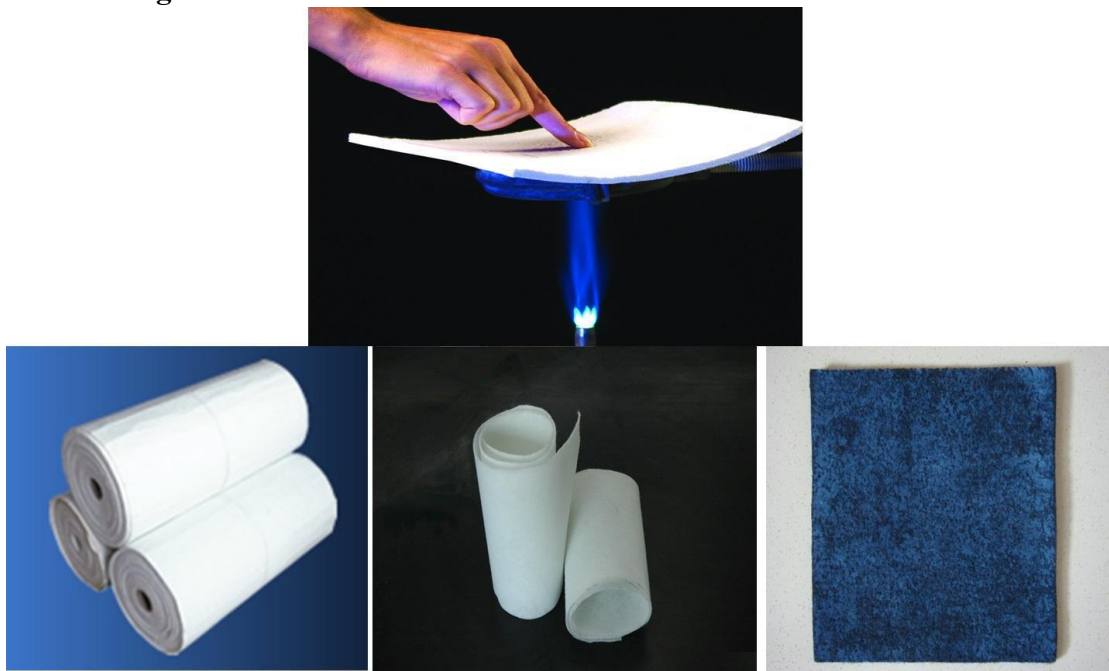
11.1, Silica Aerogel Thermal Insulation Blanket

Silica aerogel is renowned as the lightest and lowest-density solid material known, at barely more than the density of air. Silica aerogel has a Porous, Sponge-like structure in which greater than 98 percent of its volume is empty space (air).

By comparison, silica aerogel is 1,000 times less dense than glass. Even though the silica aerogel is mostly Air, one of its remarkable features is that it can support more than 10,000 times its own weight. Silica aerogel can have a very large surface area within its bulk, ranging from 500 to 1500 square meters per gram, depending on its density.

Silica aerogel is also known for its low density, low thermal conductivity, low sound speed, low refractive index and high transparency

Silica Aerogel Thermal Insulation Blanket



It is nano-adiabatic , main body is mesoporous silica aerogels and Special inorganic fiber needle punching blankets.

It has excellent insulation property, surface hydrophobicity and flame retardant property.

Its thermal conductivity coefficient at the normal temperature is about $0.016W(m.k)$, which is lower than still air.

And its hydrophobic rate can reach 99% under normal temperature. It also has excellent flame retardant performance, the fire rate meets the National Standard A1 level.

Wide service temperature: $-200\sim 780^{\circ}C$.

Easy to cut and install at construction site.

Applications



Products can be used for pipes, tanks, containers and other areas and it is the pursuit of efficient insulation and the best choice for the lowest energy consumption : thermal insulation, super capacitors, water deionizers, sensors for gas detection, pollution filters, dielectric coupling layers integrated circuits, absorbents for desiccation, insecticides, dangerous liquid storage vessels, catalysis, matching layers for acoustical transducers, sound insulation, kinetic energy absorbers, sound insulation, impact protection, crucibles for molten metals, nuclear particle detectors .

The unique combination of properties makes aerogels useful in a range of applications and best candidates for many others in the future.

Model	SACB-0-3	SACB-0-6	SACB-0-10
Thickness(mm)	3	6	10
Width(mm)	1200/1400		
Color	White		
Service Temperature(°C)	-200~650		
Density	200 ± 20 kg/m ³		
Linear Expansivity	4.2x10 ⁻⁶		
Hydrophobicity	>99% According to GB/T 3810		
Tensile Strength(min) Kpa	100 Kpa According to GB/T 10299-2011		
Dimensional stability(max)	1% According to GB/T20285-2006		
Burning behavior class	S4 According to GB/T20285-2006		
Tensile Strength(min) Kpa	100 Kpa According to GB/T 10299-2011		
Coefficient of Thermal Conduction (W/mK)	-200°C	0.011	Test method YB/T 4130-2005
	-100°C	0.012	
	0°C	0.014	
	100°C	0.018	
	200°C	0.021	
	300°C	0.025	
	400°C	0.032	
	500°C	0.038	
600°C	0.046		
Application	Petroleum, Chemical Industry, Electric Power etc. in the Pipeline and Equipment Insulation, can also be used in Aeronautics and Astronautics Fields.		