Silica Aerogel
Advanced Nano-structured materials from rice husk and rice residues with applications in insulation, energy storage and clean energy source. A nanotechnology product for a greener planet.

Green Earth Aerogel Technologies (GEAT S.L.)
NIF: B-65652760
www.aerogels.es
Made in the European Union
Silica Aerogel
Fireproof and translucent insulation material made from rice husks.

What is GEAT’s silica Aerogel?
The silica aerogels of GEAT are fireproof translucent materials made from rice husk ash through its patented nanotechnology. The aerogels are made by subliming the gels without destroying its nano-structure. Its chemical composition is mainly silicon dioxide (SiO2) and air which is about 95% of the volume of material.

The word Aerogel is a combination of “aero” which means air and “gel”. This Aerogel is really just a gel made from glass (silica) and filled with air. The structure of the aerogel described on a nano scale, is a very complex network of very fine strands of glass with air in between.

The ultra high surface area of the Aerogel makes it an excellent insulation material which allows light to pass through but prevents heat and cold to penetrate easily. It can be treated chemically to be water repellent and be used in architectural daylighting. A 1/2 cm thick Aerogel can insulate extreme temperatures from minus –18 degrees up to 1000 degrees Celsius. It can be used together with glass, composite panels and polycarbonate acrylics to make translucent walls, windows and ceilings.

GEAT’s aerogel can enhance daylighting designs and meet newer, stricter energy and building code requirements.

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Translucent fireproof wall insulation made from

Aerogel ultra-thin insulation means dual energy saving in heating and illumination.

1. Plastic Frame
2. Aerogel powder/granules
3. Polycarbonate layers

- Light diffused
- Heat and Cold insulated
- Moisture repelled
- Noise reduced
- Better used of living space

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Silica Aerogel

Product packaging, specifications and applications

**Product Packaging**

The silica aerogels of GEAT are available in sample packs enclosed in a box having the dimension of 11X11X5 cm. (shown in the picture on here) Average density of the aerogels is 50g/liter and the gross weight of the package is approximately 210g grams.

The package contains 4 units of aerogel tiles with dimension of 10X10X1 centimeters or a bag of granulated aerogels weighing 200 grams. The aerogels tiles are very fragile and could break easily which is wrapped in bubble-wrap covering to prevent it from breaking.

**Specifications and Safe handling**

The chemical composition of the aerogels is 99% SiO2. Do not inhale the powders. Over exposure and inhalation of the powders could cause respiratory problems like any other dust particles in our environment. Avoid dropping and rough handling of the package to prevent the breakage of the aerogels. The aerogels are inert and will not react but it is best to store the aerogels in a moist free environment because aerogels tend to be hydrophilic and will attract moisture if overexposed to excessive moisture.

**Applications**

The aerogel powders can be mixed with other products to enhance its insulation properties such as paints, fillers and adhesives. The aerogel can be applied on glass fiber sheets, paper, pipes and textile to transform it into a fireproof insulation blanket material that can be wrapped on irregularly shaped objects. Aerogel powder is the best alternative to expanded polystyrene insulation because it is fireproof, eco-friendly and economical.

Pipe insulation, Vehicular insulation, Appliances insulation eg. refrigerators, freezers, ovens.

For more information and other details please contact us by postal mail at:

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