

PRISTINA™ AEROGEL FOR THE BUILT ENVIRONMENT IMAGINE THE POSSIBILITIES...

The Built Environment covers a wide range of buildings from small houses in the country, to tall buildings in a cityscape. TAASI's Pristina Aerogel products are unique multi-functional materials that could help 21st Century buildings to become safer, more energy efficient, and healthier, while at the same time, make the outdoor environment cleaner. The clean fresh country air could one day be enjoyed in the city as well. A number of the aerogel's useful properties might be combined in a single aerogel material for the benefit of Built Environment. Such properties include: Thermal Insulation, Adsorption, Absorption, Catalysis, Non-Combustibility (inorganic aerogels), and Acoustic properties. A Distinguished Panel of Jurors have honored TAASI for the Excellence in Material Development Award. Samples of various TAASI Aerogel products are included in the Databank and Library of Material Connexion in New York City, for Architecture, Design, and Industry.



EXAMPLES OF POTENTIAL APPLICATIONS:

- **Heating (Thermal) Insulation:** Aerogels are known for their excellent heat insulation properties. The aerogel materials may be applied inside buildings walls, attics, windows, and appliances.
- **Removal of indoor air contaminants:** Such as odors, gases and vapors form a variety of indoor sources.
- **Fire Retardation:** Being of non-organic structure, aerogel materials are non-combustible (i.e., do not catch fire), which is much safer than combustible organic foam insulation that emits deadly fumes and smoke when burning. In addition, aerogel insulation properties would help keep the fire from spreading.
- **Clean-Up of Outdoor Environment:** By painting some of TAASI's Pristina Aerogel Photocatalysts (for example) on the exterior of buildings, air pollutants may be converted into benign or manageable compounds.

- **Sound Insulation:** Sound velocity through an aerogel solid material, can be as low as 100 meters per second, compared to 332 meters per second (approximately 760 miles per hour) in air at 0 C.

BENEFITS OF AEROGEL MATERIALS:

- **Energy efficiency and cost savings:** From reducing the losses of heated or conditioned indoor air.
- **Healthier Indoor Environment:** As a result of removal of undesirable vapors and gases from air.
- **Better Fire Safety and more privacy:** Due to the non-combustibility and acoustic properties of aerogel.
- **Help Clean Outdoor Environment**
- **User Friendly, Recyclable, and Reusable:** TAASI Aerogel products are manufactured in forms that are easy to use. The aerogel from one application, could be regenerated for use in another application after the first use has been completed. Thus the regenerated aerogel materials may have several consecutive lives such as insulation, adsorption or catalysis, followed by use as building materials, and/or soil conditioners/ fertilizers.