www.aerogel.com

# aspen aerogels

# Leading the Way to Energy Efficiency

# COMPANY OVERVIEW













Aspen Aerogels puts the 'efficiency' in energy efficiency. We produce the world's most effective thermal insulation material – the aerogel insulation blanket – which delivers up to five times better thermal performance than traditional insulation materials. Our revolutionary products are effective across a broad temperature range, from the coldest freezers to the hottest furnaces, and offer superior thermal insulating properties in a space-saving, easy-to-use form.

Aspen's products are increasingly used by a wide range of global companies to improve energy efficiency in their own facilities and in the products they sell. Our key segments in the \$33 billion insulation marketplace include petrochemical and other industrial applications, commercial and residential building and construction, offshore oil & gas pipelines, original equipment manufacturer applications including transportation and appliances, and high performance outdoor gear.

Over a decade ago, when others were just starting to think about energy efficiency, we were already developing our first breakthrough aerogel technology for NASA. While many innovations come and go, Aspen's products have staying power and have transformed thermal management strategies by delivering immediate paybacks – in energy savings, cost savings, space savings, and time savings.

We continually invest in our patented technologies and proprietary manufacturing processes, with R&D and production teams responsive to new challenges. We are completing our most successful year to date with a strong customer base and a longstanding, dynamic management team. We expect increased growth by applying our technology to market needs and delivering the best insulation solutions.

Aspen Aerogels is a company with an entrepreneurial spirit to capitalize on new opportunities and a solid focus on our core thermal insulation markets. Energy efficiency is not just a buzzword for our business – it is our business.

#### **Aspen Aerogels Corporate History**

1984: First contract research

1993: Initiated aerogel development with NASA1999: Proprietary technology breakthroughs

2001: Formed Aspen Aerogels, Inc.

2002: Developed manufacturing processes and product range
 2004: Opened first manufacturing facility in Northborough, MA
 2005: Refined and expanded product range and market focus

2006: Expanded organization globally

2008: Opened second manufacturing facility in East Providence, RI

2011: Expanded East Providence facility









# **About Aerogel Insulation**

Aerogels have been in existence for more than 70 years. They consist of lightweight silica solids derived from a gel in which the liquid component has been replaced with gas. The silica solids, which are poor conductors, consist of very small, three-dimensional, intertwined clusters that comprise only 3% of the volume. Conduction through the solid is therefore very low. The remaining 97% of the volume is composed of air in extremely small nanopores. The air has little room to move, inhibiting both convection and gas-phase conduction.

These characteristics make aerogel the world's lowest density solid and most effective thermal insulator. The outstanding thermal properties of aerogels have been studied for decades, but Aspen Aerogels has developed a technically and economically viable form of aerogel for industrial and commercial insulation uses. Our unique process integrates aerogel into a carrier to create flexible, resilient, durable aerogel blankets with superior insulating properties.

## **Contact Information**

### **HEADQUARTERS / R&D**

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