



## Product Used

Spaceloft®  
Insul-Cap™

## Wood Framing Insulated With Aerogel Improves Energy Efficiency by 15%

Economical method to eliminate thermal bridging in framing members

"We look forward to Insul-Cap's benefits—such as lower heating bills! The aerogel already acts as a sound barrier in our bedroom, which feels "tight" due to the insulation on the studs."

Homeowners

### Challenges

- Homeowners renovating a nearly 300-year-old house wanted to increase the energy efficiency at an economical price.
- With their construction and real estate experience, the owners understood that to improve the home's energy efficiency they would have to address heat loss through the frame.
- Due to old construction techniques and materials, framing density varied throughout the house and in some cases was quite high.

### Aerogel Solution

- The homeowners selected **Spaceloft® Insul-Cap™** to eliminate the thermal bridging through the frame members in the walls being renovated. This greatly increased the overall thermal efficiency of those walls.
- Spaceloft Insul-Cap can be installed on the interior or exterior of the framing member, depending on the construction or renovation details. In this application, the contractor opted to install the Spaceloft Insul-Cap to the inside of the framing members.

### Benefits

- The R-value of the walls containing Spaceloft Insul-Cap improved to R 13.9, a 15% improvement.
- In addition to greatly increasing the thermal efficiency of the house, Spaceloft Insul-Cap significantly reduced noise, producing both a more energy efficient and quieter house.
- Spaceloft Insul-Cap improved the energy efficiency of the house while meeting the homeowners' budget requirements.



The homeowners renovated a substantial portion of their house, which was built in 1715.

The top portion of this wall was insulated with Spaceloft Insul-Cap between the framing and gypsum wall board. Thermal bridging was reduced dramatically (see infrared image below).

Spaceloft Insul-Cap is made of a  $\frac{3}{8}$ " thick strip of flexible aerogel (right), the world's most efficient insulation material.

For easy installation, it comes with a peel-and-stick backing. The sheathing or siding is applied as normal, screwing or nailing right through the Spaceloft Insul-Cap strip. (Typical installation method shown below.)

