

## Product Information

Thermablok's® insulation strips virtually eliminate **thermal bridging**, until now a prime unresolved factor in energy loss. Comprised mainly of silica aerogel developed by NASA, Thermablok is a patented flexible, nanoporous aerogel insulation. By simply adding one strip to each stud edge before drywall, Thermablok interrupts the **thermal bridging** process through the studs.

Thermablok is an energy efficiency innovation & a green building component. This NASA based technology used on the shuttle and mars missions, is over 90% air and has the lowest thermal conductivity of any known material (13.5mW/mK).

Whether commercial, residential, municipal, new construction or urban retrofit, Thermablok strips increases the whole wall R-value, regardless of cavity insulation choice or framing material. Tested assemblies have increased whole wall R-values by over 40% (United States Dept of Energy Oakridge National Research Laboratory & J.M. Lab)

Extensive research studies by the Dept. of Energy (O.R.N.L) indicates. that 10-15% of the U.S. residential energy consumption is lost through thermal bridging. **Thermal bridging** is not generally accounted for in analysis of building loads, HVAC sizing or whole building energy consumption calculations.

Thermablok's patented chemistry offers both hydrophobic performance and an ability to breathe - in the same material. This allows for the design of both venting concepts and also installation where water would be a problem to traditional insulation materials. Material performance is unaffected by moisture and will not support mold growth.

Thermablok's unique properties – extremely low thermal conductivity, superior flexibility, compression resistance, hydrophobicity, and ease of use – make it essential for those seeking the ultimate in thermal protection.

## Physical Properties

Size*	<u>Strip Form</u> - 1/4in x 1 1/2in x 4ft 6.35mm x 38mm x 1.22m <u>Blanket Form</u> - 1/4in x 57in x 125ft 6.35mm x 1,450mm x 41.15m
Fire Rating ASTM E84	Class A Flame Spread 20 / Smoke Index 50
Application Temp Range	-328° F to +400° F -200° C to +200° C
Color	White
Density*	9.4 lb/ft <sup>3</sup> (0.15 g/cc)
Hydrophobic	Yes

\*Nominal values. 3/8" (10mm) before installation and 1/4" (6mm) when installed  
\*\*Information on this data sheet is subject to change without notice and should not be used for writing specifications.

(Specifications subject to change without notice.)

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Simple Peel and Stick Adhesion to Metal Framing for Low Cost Installation

## Features & Benefits

- Energy Savings – Energy & CO<sup>2</sup> Payback in Less Than 12 Months Typical. Low Up Front Cost with Lifecycle Savings
- Energy Efficient Tax Credit Eligibility Potential. Refer to 2005 Energy Policy Act "EPAct" – IRC Section 179D
- MBDC Cradle to Cradle Silver Certified
- Very flexible and can be bent at acute angles
- Easy to Install. No Jobsite Water Concern
- Environmentally Safe – RoHS Compliant. 100% Recyclable. No Respirable Fiber Content.
- Ultra Light Weight Means Low Cost Shipping and Energy Use.
- LEED Credit Categories: Optimized Energy Performance, Recycled Content, and Mold Prevention
- Lowest Thermal Conductivity of any Insulation. Achieve Whole Wall R-value Increases up to 42%.
- No Physical Property Changes with Age, Compression or Moisture. Super Hydrophobic, yet Breathable.
- ASTM E84 Class A Fire Rated and Euroclass Fire Test E Rated.
- Enhanced Acoustical Properties. Acoustical Dampening and Decoupling Characteristics Added to Assemblies