DATA SHEET

Spaceloft®

HIGH PERFORMANCE INSULATION FOR BUILDING ENVELOPES

Spaceloft is a flexible, nanoporous aerogel blanket insulation designed to meet the demanding energy conservation requirements of residential and commercial building applications.

Spaceloft'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.

Using patented technology, Spaceloft insulation combines a silica aerogel with reinforcing fibers to deliver industry-leading thermal performance in an easy-to-handle and environmentally friendly product. Spaceloft products are a proven, effective insulator in building applications, providing maximum energy efficiency in walls, floors, roofs, and framing.

Advantages

Superior Thermal Performance
Up to five times better thermal performance than competing insulation products

Reduced Thickness and Profile
Equal thermal resistance at a fraction of the thickness

Less Time and Labor to Install
Easily cut and conformed to complex shapes, tight curvatures, and spaces with restricted access

Physically Robust
Soft and flexible but with excellent springback, Spaceloft® recovers its thermal performance even after compression events as high as 50 psi

Shipping and Warehousing Savings
Reduced material volume, high packing density, and low scrap rates can reduce logistics costs by a factor of five or more compared to rigid, preformed insulations

Hydrophobic Yet Breathable
Spaceloft® repels liquid water but allows vapor to pass through

Environmentally Friendly
Landfill disposable with no respirable fiber content

Characteristics

Spaceloft® can be cut using conventional textile cutting tools including scissors, electric scissors, and razor knives. The material can be dusty, and it is recommended gloves, safety glasses, and dust mask be worn when handling material. See MSDS for complete health and safety information.

Other Available Materials

Aspen Aerogels® produces several series of flexible aerogel blanket materials for thermal insulation, energy absorption, and fire protection. Please contact Aspen Aerogels® for additional information on these products.

Product Properties and Sunstainability

Thicknesses*	0.2 in (5 mm) 0.4 in (10 mm)
Width*	58 in (1,475 mm)
Thermal Conductivity ASTM C 518 (Mean Temp. 75°F) EN 12667 (Mean Temp. 10°C)	 0.101 BTU-in/hr-ft²-°F 14 mW/m-K
Color	Gray
Compressive Strength ASTM C 165	8 psi stress at 10% compression
Fire Performance ASTM E 84	Class A
Water Vapor Transmission ASTM E 96	33 Perms
Hydrophobic	Yes
Embodied Energy	53 MJ/kg
Embodied CO_2	4.2 kg of CO_2/kg

* Nominal Values

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