ULTRA THIN

SPACELOFT®

FOR BUILDINGS AND HOMES

INSULATION

DATA SHEET

Spaceloft® is a flexible, nanoporous aerogel blanket insulation that reduces energy loss while conserving interior space in 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 nanotechnology, Spaceloft® insulation combines a silica aerogel with reinforcing fibers to deliver industry-leading thermal performance in an easy-to-handle and environmentally safe product.

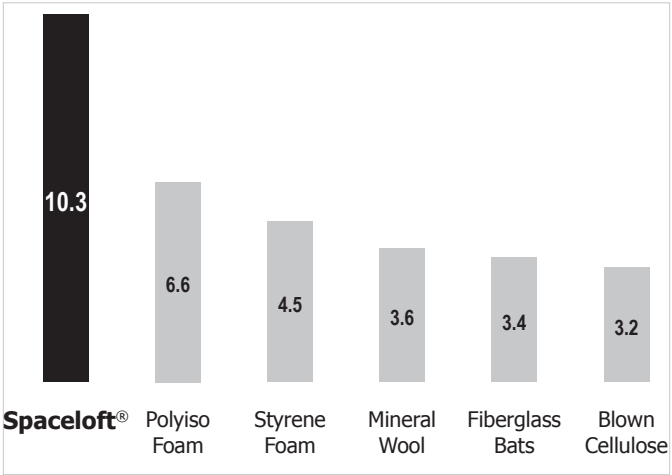
Spaceloft® is a proven, effective insulator in building applications, providing the highest R-value of any insulation material for maximum energy efficiency in walls, floors, roofs, framing, and windows.

Physical Properties

Thicknesses*	0.20 in (5 mm), 0.40 in (10 mm)
Max. Use Temp.	390°F (200°C)
Color	White
Density*	9.4 lb/ft³ (0.15 g/cc)
Hydrophobic	Yes
Material Form*	57 in (1,450 mm) wide

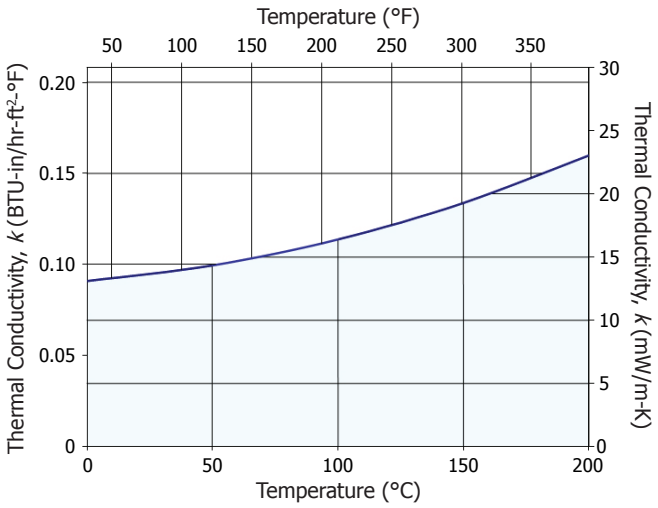
* Nominal Values

R-Value Per Inch



Thermal Conductivity

ASTM C 177 Results



Mean Temp.										
	°C	0	25	50	75	100	125	150	175	200
	°F	32	77	122	167	212	257	302	347	392
k	mW/m-K	13.1	13.6	14.3	15.3	16.4	17.7	19.3	21.0	23.0
	BTU-in/hr-ft²-°F	0.091	0.094	0.099	0.106	0.114	0.123	0.134	0.146	0.160

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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 comformed 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, pre-formed insulations

Simplified Inventory
Unlike rigid pre-forms such as pipe cover or board, the same Spaceloft® blanket can be kitted to fit any shape or design

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

Environmentally Safe
Landfill disposable, shot-free, 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 matierial. See MSDS for compelte 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.