

## K-Aerogel Ht-i

### Aerogel Blanket for Hot Insulation

K-Aerogel HT-i is a high-performance insulation blanket composed of silica aerogel, which is the lowest thermal conductor in the world, and of a glass fiber needled blanket, suitable for industrial applications with a temperature range between  $-50^{\circ}\text{C}$  to  $+650^{\circ}\text{C}$  and for the oil and gas sector, particularly for LNG applications.

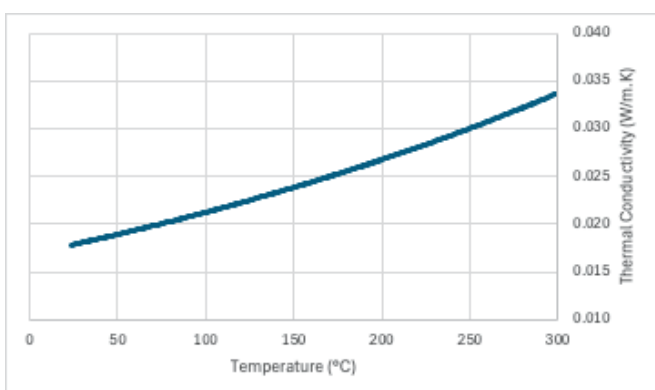
Being low in thermal conductivity, hydrophobic yet vapor permeable, compression-resistant and resilient, with an inorganic and non-combustible profile, easy to process with reduced volume, and environmentally safe, K-Aerogel HT-I is a state-of-the-art product that is the perfect choice for those in need of the best insulation performance with minimum thickness while achieving minimum energy consumption.



## Thermal Conductivity

Tested according to ASTM C177

Mean Temp. ( $^{\circ}\text{C}$ )	k (W/m.K)
23.9	0.017
37.8	0.018
93.3	0.019
149	0.021
204	0.023
260	0.030
316	0.032



## Advantages

- Best-in-class CUI protection
- Durable format permits preinsulation and reuse
- Hydrophobic and breathable, resists liquid water and avoids the damaging effects of wet insulation
- Reduced logistics costs relative to rigid insulation—lower scrap, transport costs, and man hours on project and turnaround work
- Versatile format can be cut to fit any piece of piping or equipment
- Tough enough to maintain thermal performance even after compression events
- Faster application rates, especially on large-bore pipes and vessels
- Up to five-times better thermal performance versus competing materials

## Physical Properties

THICKNESS*	0.2 in (5mm)	0.4 in (10mm)
ROLL SIZE*	Approx. 68 sqm; 59 in (1500mm) wide	Approx. 45 sqm; 59 in (1500mm) wide
MAX USE TEMP.	1200°F/650 °C	
COLOUR	Beige	
DENSITY*	200 kg/m <sup>3</sup>	
HYDROPHOBIC	Yes	

## Specification Compliance and Performance

TEST PROCEDURE	PROPERTY	RESULTS
ASTM C1728 TYPE III, GRADE 1A	Standard Specification for Flexible Aerogel Insulation	Complies
ASTM C165	Compressive Resistance	≥3 psi (20.7kPa)@ 10% deformation
ASTM C356	Linear Shrinkage Under Soaking Heat	< 2%
ASTM C411	Hot Surface Performance	Pass
ASTM C447	Estimation of Maximum Use Temperature	650°C
ASTM C795	Insulation for Use Over Austenitic Stainless Steel	Pass
ASTM C1101/1101M	Flexibility of Blanket Insulation	Flexible
ASTM C1104/1104M	Water Vapour Sorption	<5 % (by weight)
ASTM C1338	Fungal Resistance of Insulation Materials	Pass
ASTM C1617	Corrosiveness of Steel	Pass
ASTM C1763	Water Absorption by Immersion	Pass
ASTM E84	Surface Burning Characteristics	Flame Spread Index (FSI) (< 5) Smoke Developed Index (<10)

## Applications

K-Aerogel Ht-i are ideal for insulating pipes, vessels, tanks, and equipment in a variety of industries. It is a high performing material that is durable to wear, tear and extreme weather conditions, thus it is widely accepted by many industries that include:

- Downstream Oil and Gas Industry - Refineries, Petrochemical Plants and Gas Processing Plants
- Upstream Oil and Gas Industry - Subsea Piping and Offshore Platforms
- Marine and LNG Vessels
- Power Generation Sector
- Buildings and constructions

## Contact Us

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