

## K-Aerogel Cd-i

### Aerogel Blanket for Cold Insulation

K-Aerogel Cd-i is a high performance insulation blanket composed of silica aerogel, which is the lowest thermal conductor in the world, and of glass fiber needed blanket, suitable for the industrial applications with a temperature range between  $-200^{\circ}\text{C}$  to  $+250^{\circ}\text{C}$  and for oil and gas sector and LNG application.

Being super low thermal conductive, hydrophobic, compression resistant and resilient, inorganic and inflammable profile, easy processing with reduced volume, and environmentally safe.

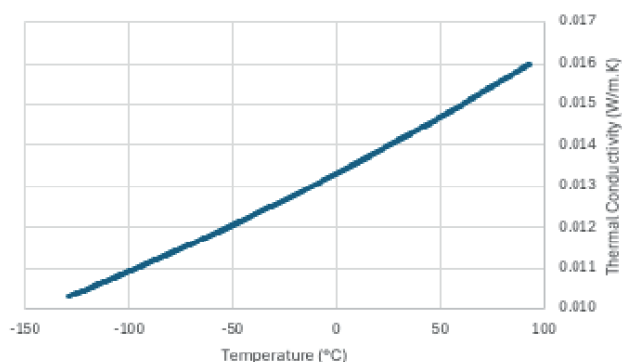
K-Aerogel Cd-i is the state-of-art product which is the perfect choice for those in need of the best insulation performance with minimum thickness while achieving minimum energy consumption.



## Thermal Conductivity

Tested according to ASTM C177

Mean Temp. ( $^{\circ}\text{C}$ )	Thermal Conductivity ( $\text{W/m.K}$ )
-129	0.011
-73.3	0.012
-17.8	0.013
23.9	0.014
37.8	0.015
93.3	0.016



## Advantages

- Durable and flexible even at cryogenic temperatures
- Eliminates the need for contraction joints reducing cost and complexity
- Extremely low thermal conductivity (k-value) enables thinner designs for improved space efficiency
- Increased labor productivity and faster installation rates
- Proven in global LNG liquefaction and regasification service
- Sustained performance during construction, transport and operations makes it suitable for pre-insulation and modular builds
- Thermal, acoustic, jet-fire, pool fire, and cold splash protection in a single system
- Integrated, zero perm vapor retarder provides redundant protection in an easy-to-install package

## 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.	250°C	
COLOUR	White	
DENSITY*	180kg/m <sup>3</sup>	
HYDROPHOBIC	Yes	

## Specification Compliance and Performance

TEST PROCEDURE	PROPERTY	RESULTS
ASTM C1728 Type I, Grade 1 B	Standard Specification for Flexible Aerogel Insulation	Complies
ASTM C165	Compressive Resistance	>5 psi (34.5Kpa) @ 10% deformation
ASTM C356	Linear Shrinkage Under Soaking Heat	< 2%
ASTM C795	Insulation for Use Under Austenitic Steel	Pass
ASTM C1101/1101M	Flexibility of Blanket Insulation	Flexible
ASTM C1104/1104M	Water Vapor Sorption	Pass
ASTM C1338	Fungal Resistance of Insulation Materials	No Growth
ASTM C1617	Corrosiveness to Steel	Pass
ASTM C1763	Water Absorption by Immersion	Pass
ASTM E84	Surface Burning Characteristics	Flame Spread Index (FSI) (< 25) Smoke Developed Index (<50)
ASTM E96	Water Vapour Transmission Rate of Vapour Retarder	0.00 perm

## Applications

K-Aerogel Cd-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

For more information, visit  
[www.klayenersol.com](http://www.klayenersol.com)

A-19-6, Block A, Jaya One, No 72A,  
Jalan Profesor Diraja Ungku Aziz,  
46200, Petaling Jaya, Selangor

