



Flexible Aerogel Insulation for Ambient to Cryogenic Commercial and Industrial Applications

Cryogel® x201 is a flexible aerogel blanket insulation engineered to deliver maximum thermal protection with minimal weight and thickness. Cryogel x201's extremely low thermal conductivity supports equivalent thermal resistance in a fraction of the thickness of traditional insulation materials.

Cryogel x201's unique properties – superior thermal performance, exceptional flexibility, durability, and ease of use – make it essential for those seeking the ultimate in thermal protection and space savings for ambient to cryogenic applications. Cryogel x201 is available in 0.4 in (10 mm) and 0.2 in (5 mm) thicknesses. It is easy to cut, install, and fabricate. Cryogel x201 can also be conformed to fit complex shapes or fit applications with restricted access.

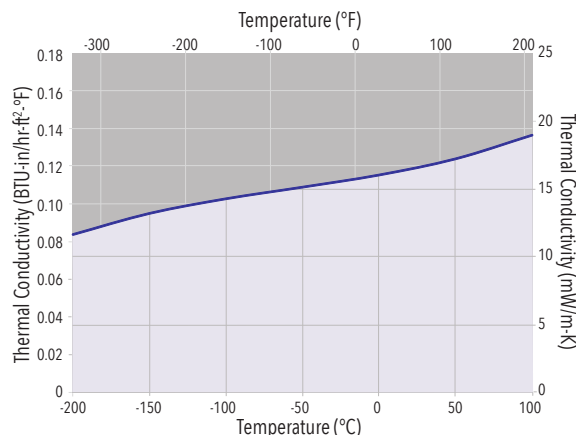
Ideal for commercial use, Cryogel x201 excels in thermal management solutions for appliances, cold storage, automotive, and transportation applications. For cryogenic applications including LNG or Gas Processing, Cryogel insulation is also available as [Cryogel Z](#) which incorporates an integral, zero permeance vapor retarder.

THERMAL CONDUCTIVITY†

†Tested in accordance with ASTM C177

Mean Temp. °F / °C	k BTU-in/hr-ft²-°F / mW/m-K
-200 / -129	0.096 / 14
-100 / -73.3	0.10 / 15
0 / -17.8	0.11 / 16
75 / 23.9	0.12 / 17
100 / 37.8	0.12 / 17
200 / 93.3	0.13 / 19

†Thermal conductivity measured at a compressive load of 2 psi.



ADVANTAGES

- **Extremely low thermal conductivity (k-value) enables thinner designs for improved space efficiency**
- **Durable and flexible even at cryogenic temperatures**
- **Easily cut and conformed to complex shapes, tight curvatures, and spaces with restricted access**
- **Durable format permits reuse**
- **Sustained performance during construction, transport and operations makes it suitable for pre-installation applications**
- **Flexible blanket format is fast and easy to install**
- **Environmentally safe—landfill disposable, shot-free, with no respirable fiber content**

PHYSICAL PROPERTIES

PRODUCT	CRYOGEL 5201	CRYOGEL 10201
THICKNESS*	0.2 in (5 mm)	0.4 in (10 mm)
ROLL SIZE*	Approx. 1250 sqft	Approx. 700 sqft
MAX. USE TEMP.	390°F (200°C)	
COLOR	White	
DENSITY*	10 lb/ft ³ (0.16 g/cc)	
HYDROPHOBIC	Yes	

*Nominal Values

SPECIFICATION COMPLIANCE AND PERFORMANCE

TEST PROCEDURE	PROPERTY	RESULTS
ASTM C1728, Type 1, Grade 1B	Standard Specification for Flexible Aerogel Insulation	Complies
ASTM C165 ¹	Compressive Resistance	≥ 5 psi (34.5 kPa) @ 10% deformation
ASTM C356	Linear Shrinkage Under Soaking Heat	< 2%
ASTM C795	Insulation for Use Over Austenitic Stainless Steel	Pass
ASTM C1101/1101M	Flexibility of Blanket Insulation	Flexible
ASTM C1104/1104M	Water Vapor Sorption	≤ 5% (by weight)
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 ≤ 25 Smoke Developed Index ≤ 50

[1] Compression resistance measured using a preload of 2 psi.

THE AEROGEL ADVANTAGE

Aerogel is a lightweight solid derived from gel in which the liquid component of the gel has been replaced with air. The process of creating aerogel results in a material with extremely low density and the lowest thermal conductivity of any solid. These remarkable properties make aerogel one of the world's most efficient insulating materials. Our patented process integrates this unique aerogel into a fiber-batting to create flexible, resilient, and durable aerogel blankets with superior insulating performance.

WORKING WITH CRYOGEL[®]

Clean, flush, and accurate cutting of Cryogel can be achieved using conventional cutting tools such as scissors, tin snips, razor knives, and hot knives. As with all technical insulation materials, appropriate personal protective equipment (PPE) should be worn when handling, cutting and installing Cryogel. See SDS/AIS for complete health and safety information.

TECHNICAL SERVICES

Cryogel represents the state of the art in cold service asset and process protection, minimizing total installed costs while facilitating long-term operating cost savings. Our Technical Services team offers comprehensive assistance for your project, from initial design and specification, through to training and site start up.

MORE INFO

Scan with mobile device or go to aerogel.com/cryogel

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