Flexible Industrial and Commercial Insulation for Sub-Ambient and Cryogenic Applications

Cryogel® Z flexible aerogel blanket insulation is engineered to deliver maximum thermal protection with minimal weight and thickness. Unmatched in sub-ambient, cold cycling and cryogenic applications. Cryogel Z incorporates an integral vapor retarder with zero water vapor permeance to ensure maximum asset protection. Cryogel Z’s extremely low thermal conductivity minimizes heat gain and liquid boil-off. Cryogel Z remains flexible, even at cryogenic temperatures, eliminating the need for complex, costly contraction joints thereby simplifying and speeding installation. Its durable format withstands mechanical abuse, and provides continued protection throughout the life of the asset. Cryogel Z is ideal for both maintenance work and new builds, supporting faster and safer installations with sustained long term performance.

In addition to being the first choice in cold conservation, Cryogel Z offers acoustic attenuation and protections against cold splash, pool fire, and jet fire. The combination of these safeguards make Cryogel Z ideal for onshore, offshore and marine applications.

**THERMAL CONDUCTIVITY**

*Tested in accordance with ASTM C177*

<table>
<thead>
<tr>
<th>Mean Temp. °F / °C</th>
<th>Thermal Conductivity BTU-in/hr-ft²°F/W/m²K</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 / 129</td>
<td>0.096 / 14</td>
</tr>
<tr>
<td>-100 / 73.3</td>
<td>0.10 / 15</td>
</tr>
<tr>
<td>0 / -17.8</td>
<td>0.11 / 16</td>
</tr>
<tr>
<td>75 / 23.9</td>
<td>0.12 / 17</td>
</tr>
<tr>
<td>100 / 37.8</td>
<td>0.12 / 17</td>
</tr>
<tr>
<td>200 / 93.3</td>
<td>0.13 / 19</td>
</tr>
</tbody>
</table>

*THERMAL CONDUCTIVITY is measured at a compressive load of 2 psi.

**ADVANTAGES**

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

Clean, flush, and accurate cutting of Cryogel Z 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 Z. See SDS/AIS for complete health and safety information.

TECHNICAL SERVICES

Cryogel Z 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

PRODUCT WEB PAGE

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

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