



Industrial Aerogel Insulation for High-Temp Applications

Temperatures as high as 1202°F (650°C) Up to 5X more efficient than other insulation products Mitigates the risk of corrosion under insulation (CUI)

CorroGel CG650 chemical nano aerogel insulation blanket is designed & engineered for superior thermal insulation performance. This combination of nano porous aerogel & high temperature resistant glass fiber are combined using a patented technology. CG650 is flexible, hydrophobic, fire resistant, is stable and will not decay and has maximum service temperature as high as 1202°F (650°C). The unique process used to produce this product allows it to have an extremely low thermal conductivity and an A1 grade fire-resistance (completely non-flammable). CG650 is also environment-friendly, generates minimal dust during handling, provides acoustic attenuation and offers excellent mechanical protection for an asset.

CG650-3

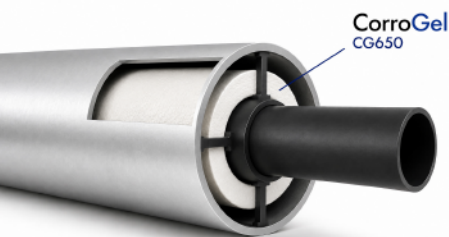
3mm

CG650-5

5mm

CG650-10

10mm



Why CorroGel CG650?

- Robust mechanical properties, designed for extended service life.
- Capable of withstanding mechanical abuse & temperature fluctuations while still being lightweight and flexible.
- A1, Non-Flammable, zero smoke generation.
- Hydrophobicity ≥99%, repels liquids & water.
- Requires as little as 1/3 the material thickness to achieve same insulating properties when compared to traditional materials.
- Reduces heat loss, improves space efficiency & saves overall construction cost.
- Service temperature as high as 1202°F (650°C).
- Density lower than 180kg/m3, easy transportation & storage.
- Designed for easy processing/handling, reducing installation time & labor costs.

Petrochemical Pipelines



Oil & Gas Pipelines



Powerplant Pipelines



District Heating



Thermal Reactors



Solar Energy



Industrial Furnaces



Industrial Storage Tanks



Waste Water Processing



Battery Cryo Protection



Battery Thermal Protection



Vehicle Fireproofing

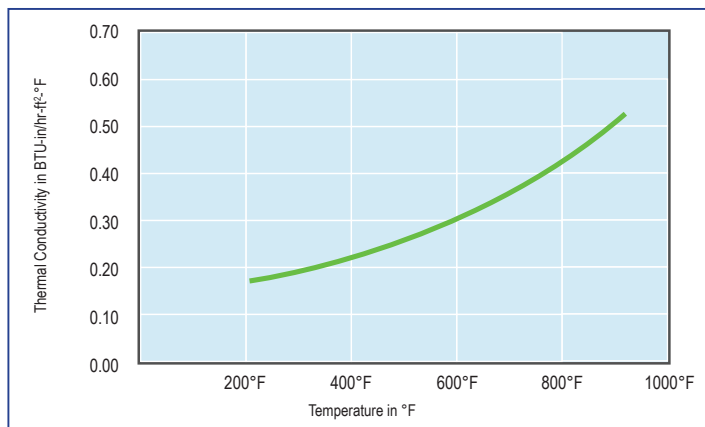


What is Aerogel?

Aerogel is a class of mesoporous solid material with the lowest bulk density known to the world. Because aerogel is typically transparent with a blue cast, it is nicknamed "Solid Smoke" or "Frozen Smoke". Aerogel displays incredible thermal, optical, electrical, mechanical & acoustic properties. Aerogel is listed as one of the ten most important new materials in the 21st century and it has vast potential waiting to be discovered.

CorroGel CG650 Technical Information

Product	CG650
Maximum Temperature	1202°F (650°C)
Recommended Service Temperature	-58°F - 1112°F (-50°C - 600°C)
Thermal Conductivity @ 212°F (100°C)	0.17 Btu-in/hr-°F-ft²
Thermal Conductivity @ 392°F (200°C)	0.22 Btu-in/hr-°F-ft²
Thermal Conductivity @ 572°F (300°C)	0.27 Btu-in/hr-°F-ft²
Thermal Conductivity @ 752°F (400°C)	0.39 Btu-in/hr-°F-ft²
Thermal Conductivity @ 932°F (500°C)	0.53 Btu-in/hr-°F-ft²
Available Thickness	5 mm & 10 mm
CG650-5 Roll Size (5 mm) W x L	1.6 m x 43 m (740 sq. ft.)
CG650-10 Roll Size (10 mm) W x L	1.6 m x 26 m (446 sq. ft.)
Color	White
Inflammability	A1 (non-flammable)
Density	11 lb/ft³ (180 kg/m³)



Thermal Conductivity for LP / HP Steam

15 psi / 212°F	0.17 Btu-in/hr-°F-ft²
150 psi / 392°F	0.22 Btu-in/hr-°F-ft²

CorroGel CG650 Meets the Following Test Requirements

Test	Description	Results
ASTM C165	Compressive resistance	≥11.2psi (77 kPa) @ 10% deformation
ASTM C356	Linear shrinkage under soaking heat	< 1% @ 1200°F (649°C)
ASTM C692	External stress cracking tendency of austenitic stainless steel	Pass
ASTM C411	Hot surface performance	Pass; No warping or denting after 752°F (400°C) test
ASTM C447	Maximum use temperature	1202°F (650°C)
ASTM C871	Materials for leachable chloride, fluoride, silicate & sodium ions	Pass
ASTM C1101	Flexibility of blanket insulation	Flexible
ASTM C1104	Water vapor sorption	< 1%
ASTM C1338	Fungal resistance of insulation	No aspergillus flavus
ASTM C1617	Corrosiveness to steel	Pass
ASTM C1763	Water absorption by immersion	Pass
ASTM D4986	Burning rate	Pass
ASTM E84	Surface burning characteristics	Pass; ≤ 1 flame index & ≤ 1 smoke index
ASTM C795	Safe use over austenitic stainless steel	Pass

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KingsMen CorroGel DS-CG650-R1

