DATA SHEET

Pyrogel® 2250

FLEXIBLE INSULATION FOR HIGH TEMPERATURES

Pyrogel® 2250 is a flexible aerogel nanoporous insulation blanket designed for high-temperature applications including transportation, power generation, thermal and fire protection, and tube bundles and small diameter tubing.

Using patented nanotechnology, Pyrogel® 2250 combines a silica aerogel with reinforcing fibers to deliver very low thermal conductivity, high temperature resistance, and good flexibility in an environmentally safe product.

Pyrogel® 2250 provides excellent thermal performance up to 392ºF (200ºC), while offering many advantages including low dusting, high tensile strength, high compressive strength, and hydrophobicity.

Physical Properties

Thickness*	0.08 in (2 mm)
Max. Use Temp.	390°F (200°C)
Color	Black
Density*	10.7 lb/ft^3 (0.17 g/cc)
Hydrophobic	Yes
Material Form*	57 in (1,448 mm) wide x 450 ft (137 m) long rolls
Chloride content	Less than 35 ppm when tested using ASTM C871
Tensile Strength (stress at maximum load, typical value)	317 psi per modified ASTM D5034, single layer specimen at 1 in width

* Nominal Values

Advantages

Superior Thermal Performance
Up to five times better thermal performance than competing insulation products

Minimum Weight and Thickness
Low thermal conductivity at a fraction of the thickness

Easy to Apply and Handle
Easily cut and comformed to complex shapes, tight curvatures, and spaces with restricted access

Physically Robust
Soft and flexible but with excellent springback

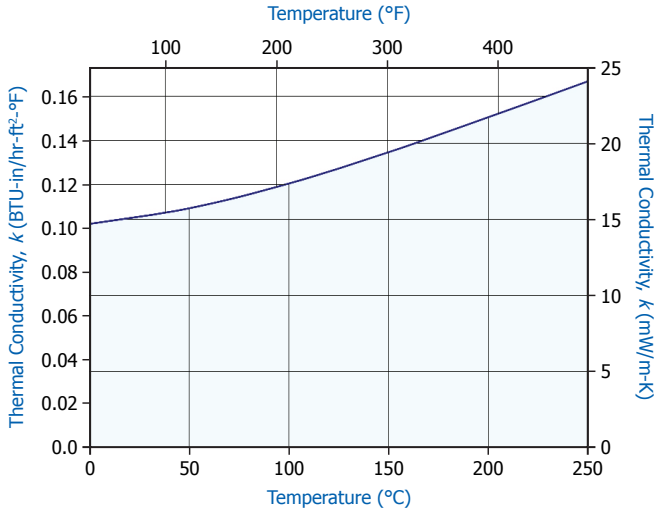
Shipping and Warehousing Savings
Reduced material volume, high packing density, and low scrap rates can reduce logistics costs by a factor of five or more compared to rigid, pre-formed insulations

Simplified Inventory
Unlike rigid pre-forms such as pipe cover or board, the Pyrogel® 2250 blanket can be kitted to fit any shape or design

Environmentally Safe
Landfill disposable, shot-free, with no respirable fiber content

Thermal Conductivity†

ASTM C 177 Results



Mean Temp.	°C	0	50	100	150	200	250
	°F	32	122	212	302	392	482
k	mW/m-K	14.7	15.7	17.4	19.4	21.7	24.1
	BTU-in/hr-ft²-°F	0.102	0.109	0.120	0.135	0.151	0.167

† Thermal conductivity measurements taken at a compressive load of 2 psi.

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Characteristics

Pyrogel® 2250 can be cut using conventional textile cutting tools including scissors, electric scissors, and razor knives. The material can be dusty, and it is recommended gloves, safety glasses, and dust mask be worn when handling matierial. See MSDS for compelte health and safety information. Also available with silicone coating.

Other Available Materials

Aspen Aerogels® produces several series of flexible aerogel blanket materials for thermal insulation, energy absorption, and fire protection.
Please contact Aspen Aerogels® for additional information on these products.

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