

# Pyrogel<sup>®</sup> 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 392°F (200°C), 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.	392°F (200°C)
Color	Black
Density*	10.7 lb/ft <sup>3</sup> (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

2 to 8 times better 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 conformed 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

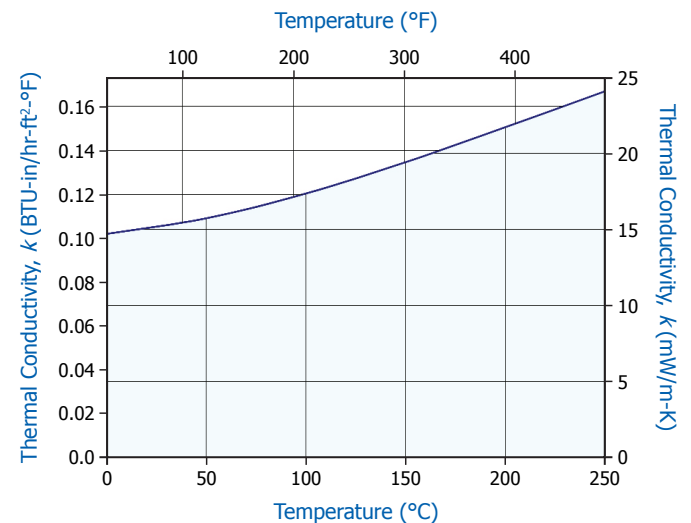
Unlike rigid pre-forms such as pipe cover or board, the Pyrogel 2250 blanket can be kitted to fit any shape or design

#### Environmentally Safe

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

### Thermal Conductivity<sup>†</sup>

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-ft <sup>2</sup> -°F	0.102	0.109	0.120	0.135	0.151	0.167

<sup>†</sup> Thermal conductivity measurements taken at a compressive load of 2 psi.

## DATA SHEET

### Pyrogel 2250

#### 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 material. See MSDS for complete health and safety information. Also available with silicone coating.

#### Other Available Materials

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

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