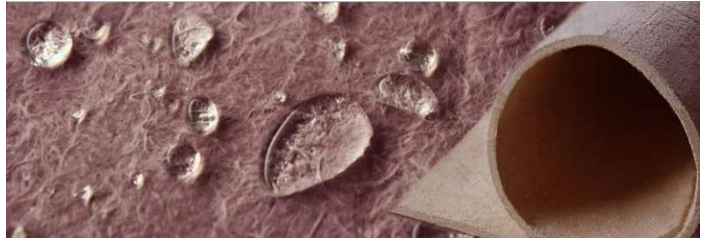


# PYROGEL® XTE

## High-Performance Aerogel Insulation for Industrial and Commercial Applications

**Pyrogel® XTE** is a flexible, high-performance, aerogel blanket insulation designed for use in industrial and commercial applications.



**Pyrogel® XTE** is engineered to deliver superior thermal performance while offering excellent protection against corrosion under insulation (CUI). Hydrophobic and breathable, **Pyrogel® XTE** ensures long-lasting water resistance for both the insulation layer and underlying asset; they remain drier for longer, preserving process conditions, and saving energy in the harshest of environments.

These characteristics make **Pyrogel® XTE** the “go-to” insulation for industry-leading CUI defence.

With its extremely low thermal conductivity, **Pyrogel® XTE** is up to 75% thinner than competing materials. Its thin profile makes it ideal for installation in congested areas or to resolve mechanical clashes, increasing both plant safety and efficiency.

**Pyrogel® XTE** is mechanically robust, enabling pre-insulation to save time and money. It can be removed and reused after inspection, lowering total cost of ownership.

The versatility of **Pyrogel® XTE** makes it suitable for a wide range of applications, from small-bore pipe to the largest format process vessels and equipment.

### Advantages

- Best-in-class CUI protection
- Hydrophobic and breathable, resists liquid water and avoids the damaging effects of wet insulation
- Up to five-times better thermal performance versus competing materials
- Faster application rates, especially on large-bore pipes and vessels
- Tough enough to maintain thermal performance even after compression events
- Versatile format can be cut to fit any piece of piping or equipment
- Reduced logistics costs relative to rigid insulation—lower scrap, transport costs, and man hours on project and turnaround work
- Durable format permits pre-insulation and reuse

### Physical properties

Thicknesses*	(0.2") 5 mm	(0.4") 10 mm
Roll size*	1,500 sqft bulk rolls	850 sqft bulk rolls 80 sqft Pony rolls**
Max. Use Temp.	650°C (1200°F)	
Color	Maroon	
Density*	12.5 lb/ft <sup>3</sup> (0.20 g/cc)	
Hydrophobic	Yes	

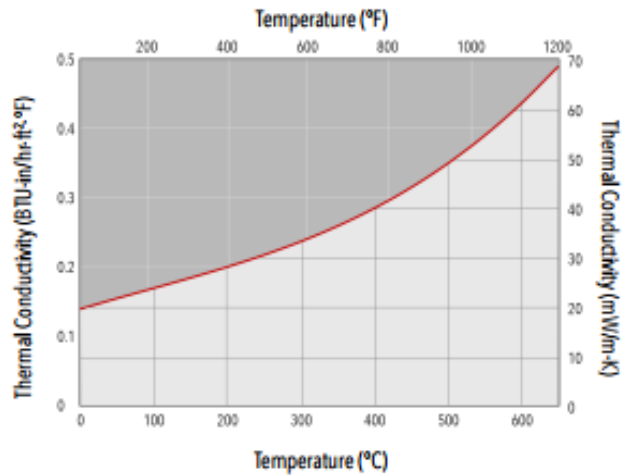
\* Nominal Values

\*\* Pony rolls are conform ASTM C1728 compliant material

# PYROGEL®XTE

Mean Temp. °F/°C	k BTU-in/hr-ft <sup>2</sup> - °F / mW/m-K
32/0	0.14/20
212/100	0.16/23
392/200	0.19/28
572/300	0.24/35
752/400	0.32/46
932/500	0.44/64
1112/600	0.62/89

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



## Specification compliance and performance

Test procedure	Property	Results
ASTM C 1728, Type III, Grade 1A	Standard specification for Flexible Aerogel Insulation	Complies
ASTM C 165	Compressive Resistance	≥ 3 psi (20.7 kPa) @ 10% deformation
ASTM C 356	Linear Shrinkage Under Soaking Heat	<2% at 650°C (1200°F)
ASTM C 411	Hot Surface Performance	Pass
ASTM C 447	Estimation of Max. Use Temperature	650°C (1200°F)
ASTM C 795	Insulation for use over austenitic stainless steel	Pass
ASTM C 1101/1101M	Flexibility of blanket insulation	Flexible
ASTM C 1104/1104M	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 ≤ 5 Smoke Developed Index ≤ 10
ISO 15665	Acoustic Insulation for Pipes, Valves and Flanges	Configurations possible to meet Class A2, B2, C2, and Shell D2

### 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. The patented process integrates this unique aerogel into a fiber-batting to create flexible, resilient, and durable aerogel blankets with superior insulating performance.

LEADER IN HIGH TEMPERATURE SOLUTIONS

TECHNICAL DATASHEET

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# PYROGEL® XTE

## Working with Pyrogel®

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

## Pyrogel® XTE Pony rolls™

All the benefits of Pyrogel® XTE in a convenient 80 sqft easy to carry roll size.

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