

PYROGEL® XTF

Flexible industrial insulation for high-temperature applications

Pyrogel® XTF is a high-temperature insulation blanket formed of silica gel and reinforced with a non-woven, high-temperature batting. Similar to Pyrogel XT plus (XT-E) in composition,

Pyrogel® XTF has been specially formulated to provide exceptional protection against fire.

Silica gels possess the lowest thermal conductivity of any known solid. **Pyrogel® XTF** achieves this industry-leading thermal performance in a flexible, environmentally safe, and easy-to-use product.

Ideal for insulating piping, vessels, tanks, and equipment, **Pyrogel® XTF** is an essential material for those seeking the ultimate in thermal efficiency.

Physical Properties

Thickness*	10 mm
Max. use temp.	650°C
Color	Gray
Density*	0,18 g/cc
Hydrophobic	Yes
* Nominal Values	

Advantages

Superior Thermal Performance

Up to 5 times better thermal performance than competing insulation products.

Reduced Thickness and Profile

Equal thermal resistance at a fraction of the thickness.

Less Time and Labor to Install

Easily cut and conformed to complex shapes, tight curvatures, and spaces with restricted access

Physically Robust

Soft and flexible but with excellent springback, **Pyrogel® XTF** recovers its thermal performance even after compression events as high as 100 psi.

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.



PYROGEL® XTF

Simplified Inventory

Unlike rigid pre-forms such as pipe cover or board, the same **Pyrogel® XTF** blanket can be kitted to fit any shape or design.

Hydrophobic Yet Breathable

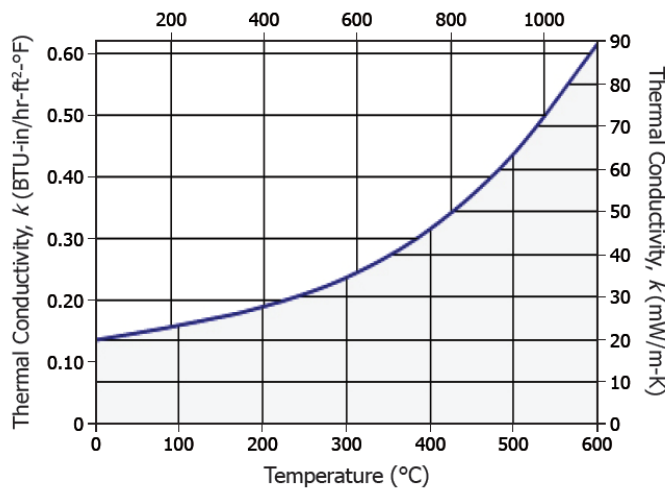
Pyrogel® XTF repels liquid water but allows vapor to pass through, helping to prevent corrosion under insulation.

Environmentally Safe

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

Thermal Conductivity

ASTM C177 Results



Mean Temp. °C	0	100	200	300	400	500	600
K mW/m-K	20	23	28	35	46	64	89

* Thermal conductivity measurements taken at a compressive load of 2 psi

Specification compliance and performance

Test Procedure

Test Procedure	Property
ASTM C 165	Compressive Strength
ASTM C 356	Linear Shrinkage Under Soaking Heat
ASTM C 411	Hot Surface Performance
ASTM C 447	Estimation of Maximum Use Temperature
ASTM C 795	Insulation for Use Over Austenitic Stainless Steel

Results

Stress at 10% strain = 14,8 psi (102 kPa)
 Stress at 25% strain = 26,6 psi (183 kPa)
 < 1,3% @ 650°C
 Passed
 650°C
 Passed

LEADER IN HIGH TEMPERATURE SOLUTIONS

TECHNICAL DATASHEET

Insulcon B.V. - The Netherlands - Tel: +31 (0)167 565 750
Insulcon GmbH - Germany - Tel: +49 (0)2131 408548-0
Keramab N.V. - Belgium - Tel: +32 (0)3 711 02 78



LEADER IN HIGH TEMPERATURE SOLUTIONS

www.insulcon.com / www.keramab.com

Form: A100-011
 Effective: 07042015/ES/ka
 Supersedes: 01072010/PP/tc
 All Rights Reserved
 LD date: 2015 rev.3.0

PYROGEL® XTF

ASTM C 1101	Classifying the Flexibility of Mineral Fiber Blankets	Class: Resilient Flexible
ASTM C 1104	Water Vapor Sorption	2,25% (by weight)
ASTM C 1338	Fungal Resistance of Insulation Materials	Passed
ASTM C 1511	Liquid Water Retention After Submersion	4% (by weight)
ASTM E 84	Surface Burning Characteristics	Flame Spread Index = 0 Smoke Developed Index = 0
ASTM E 1354	Cone Calorimetry	No ignition at 50 kW/m ²
ISO 1182:1990	Non-Combustibility	Meets criteria outlined in ISO 1182:1990
UL 1709	Rapid Rise Fire Tests of Protection Materials for Structural Steel	12 mm → 68 min 48 mm → 184 min 30 mm → 132 mm 66 mm → > 240 min

Characteristics

Pyrogel XTF can be cut using conventional cutting tools including scissors, tin snips, and razor knives. The material can be dusty, and it is recommended gloves, safety glasses, and dust mask be worn when handling material.