aspen aerogels®

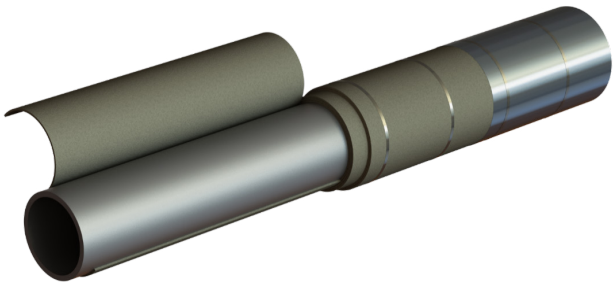
Power Generation Applications

Pyrogel®

REUSABLE PYROGEL HPS ACCELERATES HEP INSPECTION & REDUCES MAINTENANCE COSTS

PLANT SITUATION

A coal fired power plant performs annual inspections on their high-energy piping (HEP). Since these piping systems are insulated, the inspection work cannot commence until the insulation and metal jacketing are removed. Once the inspection work is complete, any remediation or repairs are performed as necessary. The insulation system and metal jacketing must then be installed onto the pipe.



Pyrogel HPS - Intuitive Installation Method & Versatile format

INSULATION CHALLENGE

The incumbent rigid calcium silicate insulation is structurally degraded and unfit for reuse, requiring the contractor to re-order insulation for each inspection event. The repurchasing of single-use insulation is costly for both the maintenance budget and the environment.

PYROGEL SOLUTION

Confronted with the need to reduce unnecessary expense, the contractor suggested Pyrogel HPS as a sustainable alternative to the existing insulation, and also elected to pre-cut the Pyrogel in advance of the outage, for additional time savings.

OPERATOR BENEFITS

In this case, benefits accrued to both the contractor and the owner: The plant owner broke the chain of replacing single-use insulation after each inspection event, lowering the plant's maintenance budget and eliminating the burden on the environment; the contractor reported significantly faster installation times, especially on elbows, while the expense associated with the portage of boxes and reordering of broken sections was completely eliminated.

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Rev 1.0

Pyrogel® Configurations

Pyrogel XTE

Medium to High Temperature Insulation

Maximum Service Temperature
1200°F / 650°C
0.4 in (10mm) - Yes
0.2 in (5mm) - Yes
Full Roll - Yes
Pony Roll - Yes
Color = Maroon

Optimized For
- Medium Pressure Steam
- Condensate Lines
- SCR Pipework
- Duct Liners
- Maximum CUI Defense

Pyrogel HPS

High Temperature Thermal Insulation

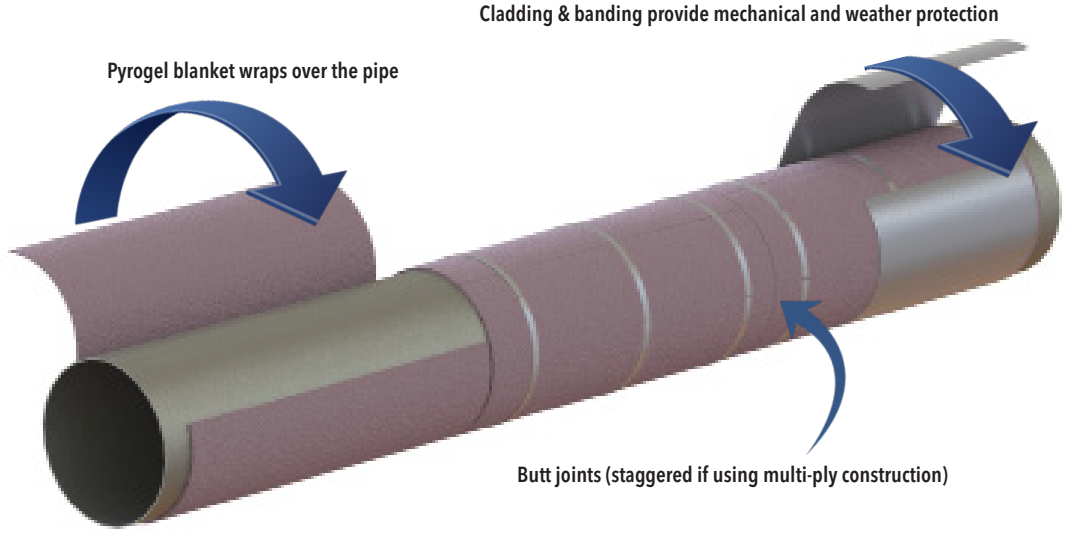
Maximum Service Temperature
1200°F / 650°C
0.4 in (10mm) - Yes
0.2 in (5mm) - No
Full Roll - Yes
Pony Roll - Yes
Color = Gray / Green

Optimized For
- Gas & Steam Turbines
- High Energy Pipes & Vessels
- Boiler Expansion Joints

80 ft2 Pony Rolls in 0.4 in. (10mm) - 45 lb / roll

850 ft2 rolls in 0.4 in. (10mm) - 350 lb / roll
1500 ft2 rolls in 0.2 in. (5mm) - 320 lb/ roll

Pyrogel® Installation Method



IMPORTANT NOTE - Pyrogel Products

The use of tape and spray adhesives is limited to application temperatures below 250°C (480°F).

18G insulators wire or stainless steel banding at 18 inch centers must be used above 480°F

Cut With Shears, Cutting Knife, Insulation Saw

Secure With Fiber Reinforced Tape, 18G Stainless Steel Insulator's Wire Or 3/4 In. Steel Banding

Technical Support

We engineered Pyrogel to resolve power generation's toughest insulation challenges, it is supported by a team of application specialists and design engineers. If you are not satisfied with the performance of your existing thermal insulation, get in touch to learn how we can assist with a Pyrogel solution tailored to your needs. Our services include

Problem Diagnosis | **Site Inspections** | **Training Seminars** | **Trial Installations** | **Specifications** | **Contractor Training**