

To whom it may concern,

March 15, 2017

When using Pyrogel XTE in applications that operate above 500°C the installation instructions below shall be followed without exception:

- Pyrogel materials shall be installed tightly, with no visible gaps between layers.
- On installations above 500°C (930°F), apply a layer of metallic foil (aluminum or stainless with a minimum thickness of 0.05mm (0.002in) over one of the layers near the middle of the stackup to block airflow. For example, in a four-layer system, apply foil over layer two. In a five-layer system, apply foil over layer two or layer three.
- Pack void spaces (e.g., around valve bodies and flanges) to prevent the formation of chimneys. Pyrogel or high-density >96 kg/m³ (6 lb/ft³) ceramic fiber are both suitable fill materials.
- Metallic jacketing is required, and must be installed and sealed completely before start-up.
- Do not remove or disturb the jacketing or insulation during start-up.
- Do not apply insulation to live equipment or piping (i.e., “hot installs”) while in operation above 500°C (930°F)
- Do not apply Pyrogel® at thicknesses greater than 80mm (3.2in) without first contacting Aspen Aerogels Technical Services department.
- When Designing Composite Systems that use Pyrogel® in conjunction with other thermal insulations for service above 300°C contact Aspen Aerogels Technical Service department for installation guidance. In some cases the superefficient nature of Pyrogel® can significantly affect the performance of standard duty insulation materials.

Failure to follow these installation guidelines may result in undesirable exothermic behavior. If you have any questions please do not hesitate to contact Aspen Aerogels for additional detail.

Best regards,

Mark Krajewski

