



## Installation Story #13 Foamfrax® Insulation

Industry: Ceramic  
Location: Northeast United States  
Installation Date: July 2002  
Operating Temperature: 2300°F (1260°C)  
Scope of Job: Low Mass Car for Tunnel Kiln  
Foamfrax Grade II Fiber, 10" (250mm) Thick, 8 PCF (128 Kg/m<sup>3</sup>)



Low mass designs offer significant fuel savings in tunnel kilns furnaces because of the low heat loss and heat storage properties of refractory ceramic fiber. However, due to the support piers on these cars, installation of either ceramic fiber blanket or modules can require extensive field cutting during installation. The Foamfrax installation process allows the insulation material to be easily placed in and around the support piers in a quick, efficient manner. Note that for a successful Foamfrax installation in this application, the entire car perimeter must be lined with either hard refractory or ceramic fiber modules.



The Foamfrax Insulation was gunned into the car body tightly around the refractory support piers and against the refractory perimeter blocks.



After the Foamfrax Insulation was gunned into place, a wet trowel was used to work the material around the support piers and smooth the surface of the car deck.



To provide a denser surface, which could be easily cleaned, TopCoat 2600 was troweled 2" thick over the Foamfrax Insulation.



The result was a monolithic, energy-efficient insulation system, which was installed very fast. This allowed the customer to return the car back to service quickly.

With the installation of Foamfrax Insulation, the following customer benefits were realized:

- **Turnkey Service**
  - A specially trained Unifrax distributor contractor was able to supply materials, equipment, and installation as a complete package.
- **Fuel Efficiency**
  - Due to the low heat loss and heat storage properties of refractory ceramic fiber, fuel efficiency was optimized.
- **Installation Speed**
  - This project was installed in two hours, start to finish, compared to a full day of installation using other type products.