



Installation Story #6 FoamfraxJ Insulation

Industry:	Forging
Location:	Northeast United States
Installation Date:	April 2001
Operating Temperature:	2300°F (1260°C)
Scope of Job:	Batch Forge Furnace 3" (76mm) Thick, 8 PCF (128 kg/m ³), Foamfrax Grade II Fiber Veneer Over Hard Refractory



Prior to Foamfrax installation, the hard refractory surface must be free and clean of all loose material. If necessary, the refractory lining must be either chipped or sandblasted to expose a stable substrate to apply the Foamfrax Insulation. For the removal of any after service refractory material, refer to the product MSDS for proper material handling guidelines.



Dilute FiberstickJ Refractory Cement is applied to the refractory surface as a surface preparation. Note that the refractory surface temperature must be below 200°F (93°C) before applying the Fiberstick cement coating. This material improves the adhesion of the Foamfrax Insulation to the refractory and controls the rate at which the moisture is transferred from the Foamfrax veneer to the refractory substrate.. Care should be taken to only apply the Fiberstick cement in areas that can be immediately gunned with Foamfrax Insulation. For best results, Foamfrax Insulation must be gunned onto wet Fiberstick Cement.



The Foamfrax material was gunned onto the sloped target wall opposite the upper sidewall burners and the entire flat arch section of the Forge Furnace.



To maintain an even thickness throughout the installation, the veneer was installed in sections. A perimeter of Foamfrax Insulation was gunned in place for each section, then the interior was filled.



The completed unit was put into service immediately after installation.

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

- **Turnkey Installation**
 - A specially trained Unifrax distributor/contractor was able to supply materials, equipment, and installation as a complete package.
- **Energy Efficiency**
 - The Foamfrax Insulation veneer on the arch of this unit was able to reduce the lining heat storage by approximately 50% yielding immediate energy savings. The Foamfrax Insulation also provides a uniform hotface surface resulting in more even heat distribution within the furnace.
- **Installation Speed**
 - This Foamfrax Insulation lining upgrade was completed in less than four hours and the furnace was immediately put into service with no cure out cycle required.