



Installation Story #4 Foamfrax® Insulation

Industry: Steel
Location: Midwest United States
Installation Date: January 2001
Operating Temperature: 2100°F (1150°C)
Scope of Job: Castable Refractory Lined Ladle Preheat Stand
3" (76mm) 8 PCF (128 kg/m³) Foamfrax Grade II Fiber Veneer



The refractory lining for this ladle preheat stand had become chipped and uneven due to thermal cycling and mechanical abuse. A veneer of Foamfrax Insulation was used to even out the lining and extend its life. Prior to installation, the refractory was wet with water to lower the refractory surface temperature below 200°F and all loose refractory material was chipped away. For the removal of any after service refractory material, refer to the product MSDS for proper material handling guidelines. All applications of Foamfrax Insulation over hard refractory materials should utilize a wash coat of Fiberstick™ cement on the refractory to optimize adherence. Please note that Foamfrax Insulation will not adhere to surfaces with temperatures in excess of 200°F.



After the installation was complete, the insulation on the ladle stand was built back to its original thickness. All voids and cracks in the refractory had been filled.



The ladle stand was put into service immediately after installation. Foamfrax Insulation does not require any special heat-up/cure-out cycle.

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.
- **Extended Service Life**
 - Given the existing condition of the refractory, this ladle stand was scheduled for a complete tear-out and reline. The Foamfrax Insulation upgrade avoided the reline and downtime costs.
- **Fast Installation**
 - Because of the quick installation of Foamfrax Insulation, the ladle stand was back in service 1 hour after the installation began.