



Installation Story #26 Foamfrax® Insulation

Industry:	Process
Location:	Western Canada
Installation Date:	October 2003
Type of Unit:	Steam Boiler
Operating Temperature:	2000°F (1094°C)
Scope of Job:	Foamfrax RG 5" (127mm) backup for Plastic Refractory



For plastic refractory linings, a low-density board product is typically used as backup insulation to increase the overall lining efficiency. The labor cost associated with installing the low-density board can be significant, especially if the board must be fitted around many anchors and angles. Foamfrax RG Insulation eliminates the need to cut and fit board, and allows for an installation rate that is considerably faster than the installation of traditional backup insulation materials.



Since plastic refractory was being installed as the hot face insulation, refractory anchors had to be installed to support the finished lining. In addition, Foamfrax "V" anchors 4 $\frac{1}{8}$ " long (102mm) were also installed on the boiler walls. In the flat and sloped roof sections of the boiler, Foamfrax "X" anchors 4" long (102mm) were installed. Mild steel was used for the "V" anchors and "X" anchors as an installation aid. Once the plastic refractory was installed, the Foamfrax RG would be captured between the steel casing and hot face lining, eliminating the need for additional support.



Foamfrax RG was installed 5" (127mm) thick over the entire boiler. The installers began gunning around the brick anchors and worked outward to ensure a tight fit against the anchors. Once the Foamfrax RG had been gunned on the wall, it was tamped, providing a flat mating surface for the plastic refractory. The Foamfrax RG was then allowed to air set.



Plastic refractory was rammed parallel to the face of the Foamfrax RG Insulation following the manufacturer's guidelines. Once the Foamfrax RG had set, it provided a low-density backup insulation material with a tight fit around the anchors and no seams to the cold face.

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

- **Turnkey Installation Service**
 - A specially trained Unifrax distributor/contractor was able to supply materials, equipment, and installation as a complete package.
- **Installation Speed**
 - The Foamfrax RG installation was completed in half the time required to install a traditional low-density backup board.