

FIELDreport

Tunnel Kiln Retrofit enables addition of fifth deck, increases capacity by 20%



Before
4 Decks with Conventional 1-1/2" SiC Beams



After Retrofit
5 Decks with 1/2" Hexoloy® SiC Beams

The tunnel kiln system used to process high alumina at 1520°C to 1540° C was retrofitted with Hexoloy SA SiC beams. The higher strength of Hexoloy SA SiC enabled the use of thinner beam cross-sections of 1/2" versus a 1-1/2" beam. This allowed for redesign and the addition of a fifth deck to a typical 4-deck arrangement within the same kiln.

This leading manufacturer of high alumina tile made this capital investment to cost effectively improve both their total capacity and overall productivity. They are responding to a growing market demand for their products.

The new Hexoloy 5-deck system:

- **Results in a 2-year payback.** The annual savings and revenue realized will more than justify the investment by avoiding more costly capacity expansion alternatives.
- **20% increase in kiln capacity & productivity.** Increases usable setting volume, allowing the live load to increase proportionately.
- Features beams measuring 1/2" x 1/2" x 30" each and spanning 24" with a maximum load of 500 pounds per deck.
- Avoids the negative economic impact of using periodic kilns (increased fuel and labor costs) to meet capacity requirements.