

WARNING - Storing and Drying ADVANCER® Kiln Shelves

This information is from Saint Gobain, the manufacturer of Advancer kiln shelves.

ADVANCER® (silicon nitride-bonded silicon carbide) refractory components should be stored in a dry, enclosed area. ADVANCER® refractory components exposed to prolonged moisture penetration may result in catastrophic failure (i.e., steam explosion) during any rapid heat-up process of the kiln. Accordingly, do not expose ADVANCER® refractory components to any prolonged moisture source including rain, snow, condensation, etc.

The application of kiln washes and coatings on ADVANCER® refractory components is an acceptable practice and is not considered a source of prolonged moisture.

If any ADVANCER® refractory components are exposed to prolonged moisture, the product must be completely dried before it is used at temperatures exceeding 212°F (100°C). As a general guideline for the drying of ADVANCER® refractory components, the product must be held slightly above the boiling point of water for a sufficient length of time to expel any moisture and as much steam as possible. The following is a recommended drying cycle for ADVANCER® refractory components exposed to prolonged moisture.

1. Heat from ambient to 210°F (99°C) at a rate of 50°F (28°C)/hour.
2. Slow heating rate to 25°F (14°C)/hour to 230°F (110°C).
3. Hold at 230°F (110°C) for 12 hours ensuring that the entire load has reached the soak temperature before the timing of the soak has begun.
4. Raise temperature to 350-500°F (177-260°C) at a rate of 100°F (56°C)/hour.
5. Hold soak temperature for 16 hours ensuring that the entire load has reached the soak temperature before the timing of the soak has begun.
6. Cool naturally/slowly by turning off the heating source.