# Long-term Use Below 1700 Alumina Refractory Brick For Industrial Kiln

Our Product Introduction

## Basic Information

- Place of Origin: Zhengzhou ,China
- Brand Name: Rongsheng Xinwei
- Certification: ISO9001
- Model Number: RS-48, RS-55, RS-65, RS-75, RS-80
- Minimum Order Quantity: 1 Ton
- Price: 200-800USD
- Packaging Details: Packed on wooden pallets, with water-proof cover, and tightened with plastic/steel bandages
- Delivery Time: 10-20 Days
- Payment Terms: TT; L/C
- Supply Ability: 2000tons /month

## Product Specification

- Highlight: **Alumina Refractory Brick For Industrial Kiln**, **Alumina Refractory Brick Below 1700C**

Our Product Introduction

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## Product Description

**Product Description of Rongsheng Refractory Supply Long-term Use Below 1700 Alumina Refractory Brick For Industrial Kiln**

Alumina refractory bricks are insulating refractory products made primarily from fused corundum, sintered alumina, and industrial alumina. They are characterized by strong resistance to acidic and alkaline atmospheres, excellent reduction resistance, and good thermal shock resistance. These bricks can be used continuously at temperatures below 1700°C.

The production process for alumina refractory bricks employs two methods: the foam method and the burnout additive method.

Foam Method: This involves preparing a foam slurry using rosin soap foaming agents, finely ground raw materials, binders, and other additives. The slurry is cast into molds, dried, fired, shaped, and inspected to produce the final product. Bricks made by this method have uniform structure, low thermal conductivity, and excellent insulation performance.
Burnout Additive Method: This method uses polystyrene spheres as burnout additives to manufacture alumina insulating refractory bricks.

**Production Process for Alumina Refractory Bricks**

**1.Raw Materials and Additives**

The primary raw materials are fused corundum, sintered alumina, and industrial alumina, with polystyrene spheres serving as burnout additives. Silica or other materials are used as volume stabilizers, providing bonding at both room and high temperatures. Binders are also added.

**2.Mixing, Molding, and Forming**

The proportions of materials are determined based on the required bulk density and physical-chemical properties of the product. Mixing is performed using a mixing machine or slurry agitator. The sequence is as follows: polystyrene spheres → part of the binder and water → powder materials → binder. Forming is achieved by vibration molding or other suitable methods, or by slurry casting into molds.

**3.Drying and Firing**

During drying, polystyrene spheres expand significantly at 90–110°C, then liquefy, vaporize, and oxidize. Most manufacturers pre-expand the spheres before production to mitigate excessive volume changes during drying. The drying temperature should not be too high or rapid, and the residual moisture in the dried brick should be less than 2%. Kilns are side-loaded for firing. At low-temperature stages, attention must be paid to the volume changes of burnout materials. The firing temperature is determined based on the brick's bulk density and physical-chemical properties and typically exceeds 1600°C. The firing process for these bricks can be faster than that for dense bricks.

**Features and Applications**

Alumina insulating refractory bricks are lightweight, have high compressive strength, low thermal conductivity, minimal shrinkage during firing, and excellent thermal shock resistance. They are suitable for use as insulation layers in high-temperature industrial furnaces, as well as working linings for kilns directly exposed to flames and precision thermal equipment. However, they are not ideal for areas in direct contact with molten metal or slag. They exhibit high stability in reducing atmospheres, and their usage temperature, depending on the purity of the product, generally ranges from 1650°C to 1800°C.

With strict quality management and a highly skilled technical team, Zhengzhou Rongsheng Refractory is committed to providing environmentally friendly, reliable, and energy-efficient alumina refractory bricks to society.

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