

## Rongsheng Factory High Alumina Checker Refractory Bricks Suitable For Various High-Temperature Applications

Our Product Introduction

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### 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: 200-800 USD
- Packaging Details: Packed on wooden pallets, with water-proof cover, and tightened with plastic/steel bandages
- Delivery Time: 20-30DAYS
- Payment Terms: TT; L/C
- Supply Ability: 2000 tons/month



### Product Specification

- Highlight: Rongsheng Factory Checker Refractory Bricks, High Temperature Checker Refractory Bricks, High Alumina Checker Refractory Bricks



### More Images



### Product Description

#### Product Description of Rongsheng Factory High Alumina Checker Refractory Bricks Suitable For Various High-Temperature Applications

High Alumina Checker Refractory Bricks are a type of brick used in high-temperature industrial applications. They are made from a high alumina content material, typically above 48% alumina oxide (Al<sub>2</sub>O<sub>3</sub>), which gives them excellent properties for withstanding extreme heat and harsh environments.

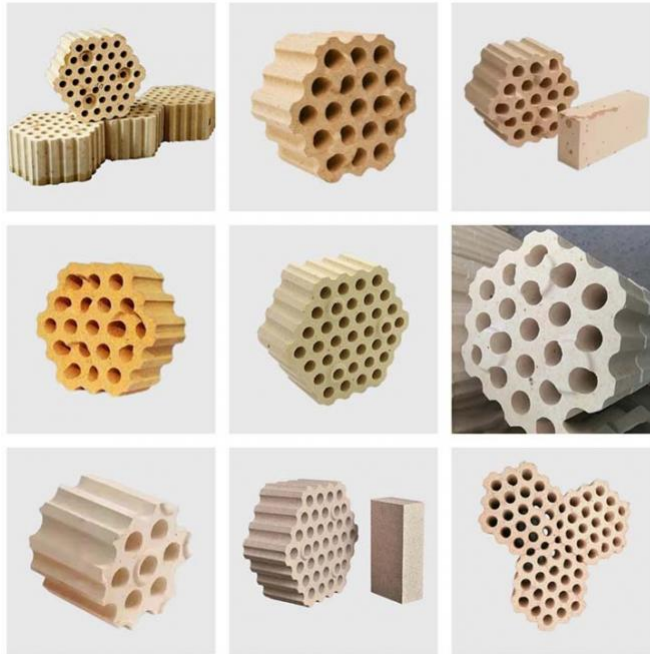
#### Physical and Chemical Properties of High Alumina Checker Refractory Bricks

1. High Temperature Resistance: Can withstand temperatures up to 1750°C (3182°F).
2. Thermal Shock Resistance: Excellent ability to withstand rapid temperature changes without cracking.
3. Mechanical Strength: High compressive strength, making them durable under heavy loads.
4. Corrosion Resistance: Resistant to slag and chemical attack, especially from alkalis and acidic environments.

#### Product Applications of High Alumina Checker Refractory Bricks

Blast Furnaces: Used in hot blast stoves to preheat air blown into the blast furnace.  
Regenerative Furnaces: Utilized in the regenerator of glass furnaces to store heat.  
Steel Industry: Employed in various high-temperature zones within steelmaking processes.  
Cement Kilns: Applied in areas where high thermal efficiency and durability are required.

Our Product Introduction



**Product Specification of High Alumina Checker Refractory Bricks**

High Alumina Checker Firebrick Physical and Chemical Index:

| Item                                   |               | Properties                                                                                                                                                  |       |       |       |       |
|----------------------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|-------|
|                                        |               | RS-80                                                                                                                                                       | RS-75 | RS-65 | RS-55 | RS-45 |
| Al <sub>2</sub> O <sub>3</sub> (%)     |               | 80                                                                                                                                                          | ≥75   | ≥65   | ≥55   | ≥45   |
| Refractoriness (°C )                   |               | ≥1790                                                                                                                                                       | ≥1790 | ≥1790 | ≥1770 | ≥1750 |
| Bulk density (g/cm3)                   |               | 2.65                                                                                                                                                        | 2.5   | 2.45  | 2.4   | 2.3   |
| Softening temperature under load (°C ) |               | 1530                                                                                                                                                        | ≥1520 | ≥1500 | ≥1470 | ≥1450 |
| Reheating<br>Linear Change<br>Rate (%) | 1500°CX<br>2H | 0.1                                                                                                                                                         | 0.1   | 0.1   | 0.1   | 0.1   |
|                                        | 1450°CX<br>2H | -0.4                                                                                                                                                        | -0.4  | -0.4  | -0.4  | -0.4  |
|                                        |               |                                                                                                                                                             |       |       |       |       |
|                                        |               |                                                                                                                                                             |       |       |       |       |
| Apparent porosity (%)                  |               | 22                                                                                                                                                          | ≤23   | ≤23   | ≤22   | ≤22   |
| Cold crushing strength (Mpa)           |               | 55                                                                                                                                                          | ≥50   | ≥45   | ≥40   | ≥35   |
| Application                            |               | steel furnace, glass furnace, sodium silicate furnace, ceramic shuttle kiln, cement rotary kiln, blast furnace, electric furnace and reverberatory furnace. |       |       |       |       |

**Manufacturing Process**

Raw Material Selection: High-quality bauxite and other alumina-rich materials are chosen.

Mixing and Forming: Materials are mixed, shaped into the checker pattern, and pressed.

Drying and Firing: Formed bricks are dried and then fired at high temperatures to achieve sintering.

Quality Control: Rigorous testing for physical properties, chemical composition, and thermal behavior.

**Product Advantages of Rongsheng High Alumina Checker Refractory Bricks**

Energy Efficiency: The checker design enhances heat transfer, improving the efficiency of the furnaces.

Longevity: High durability and resistance to wear and tear result in a longer service life.

Reduced Maintenance Costs: Due to their robustness and resistance to degradation.

Environmentally Friendly: Can withstand harsh environments, reducing the need for frequent replacements and waste.

**Comparison with Other Refractory Bricks**

Versus Fireclay Bricks: Higher alumina content provides better high-temperature performance and slag resistance.

Versus Silica Bricks: More resistant to alkali attack and has better thermal shock resistance.

Versus Magnesite Bricks: Offers superior resistance to acidic slags, whereas magnesite bricks are better for basic slags.

**Recent Developments**

Advanced Manufacturing Techniques: Improved pressing and firing methods enhance brick consistency and performance.

Nanotechnology: Incorporation of nano-alumina particles to further improve thermal and mechanical properties.

Eco-friendly Materials: Development of bricks using sustainable raw materials and reducing environmental impact during manufacturing.

**Installation and Maintenance**

Installation: Requires precise alignment to ensure optimal performance. Typically installed by skilled professionals.

Maintenance: Regular inspections for cracks or damage, and timely repairs to extend service life.



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