

Durable Magnesia Refractory Materials For Glass Furnaces

Our Product Introduction

Basic Information

- Place of Origin: Zhengzhou, China
- Brand Name: Rongsheng Xinwei
- Certification: ISO9001
- Model Number: Rongsheng
- 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: 2000 tons/month



Product Specification

- Highlight: **Glass Furnaces Refractory Materials, Magnesia Refractory Materials For Glass Furnaces**
 , Glass Furnaces Magnesia Refractory Materials

Product Description

Magnesia Refractory Materials For Glass Furnaces

Magnesia refractory materials play a pivotal role in ensuring the durability, efficiency, and performance of glass furnaces. These high-performance refractories are designed to withstand extreme temperatures, corrosive environments, and mechanical stress, making them indispensable for various zones within glass furnaces, particularly in regenerator checkerwork and other high-temperature regions.



Product Description of Magnesia Refractory Materials For Glass Furnaces

Magnesia refractories are primarily composed of high-purity magnesium oxide (MgO) and are classified based on their purity levels and bonding methods. They are available in various grades, including 98-97% MgO for high-temperature applications and 96-95% MgO for slightly less demanding environments. Specialized types, such as magnesia-chrome bricks and magnesia-zirconia bricks, are designed for applications requiring enhanced corrosion resistance or environmental safety.

Product Features of Magnesia Refractory Materials For Glass Furnaces

High Purity and Low Impurities

The use of high-purity magnesia ensures superior resistance to slag and corrosive gases.

Excellent High-Temperature Resistance

Magnesia refractories maintain structural integrity and performance at temperatures exceeding 1500°C.

Creep Resistance

Optimized raw materials and sintering processes enhance resistance to deformation under prolonged mechanical stress.

Corrosion Resistance

Directly bonded magnesia-chrome bricks exhibit exceptional resistance to chemical attacks, particularly from alkali and acidic slags.

Environmental Safety

Magnesia-zirconia bricks provide an eco-friendly alternative by eliminating Cr6+ pollution associated with traditional magnesia-chrome bricks.

Versatile Shapes and Configurations

Cylindrical bricks and other advanced designs offer greater stability and improved heat exchange performance.

Product Advantages

Enhanced Durability

High-purity magnesia materials ensure a longer service life, reducing maintenance costs.

Superior Heat Exchange Efficiency

Cylindrical magnesia bricks provide a specific heat exchange area of 16/m, outperforming traditional strip-shaped bricks with only 10.4–12.7/m.

Eco-Friendly Options

Magnesia-zirconia bricks address chromium pollution while delivering comparable performance.

Customizability

Available in a wide range of grades and configurations to meet diverse industrial needs.

Product Applications

Magnesia refractory materials are widely used in various sections of glass furnaces, including:

Regenerator Checkerwork:

High-purity magnesia bricks (98-97%) are ideal for the upper layer due to their thermal stability. Lower grades (96-95%) are used for the upper middle layer.

Middle and Lower Layers:

Directly bonded magnesia-chrome bricks are commonly used for the middle layer, while low-porosity fireclay bricks are preferred for the lower layer due to their cost-effectiveness and adequate performance.

Crown and Superstructure:

Magnesia bricks withstand high thermal loads and chemical attack in the crown of glass furnaces.

Advantages of Magnesia Refractory Materials in Glass Furnaces**Improved Furnace Efficiency**

By offering superior heat retention and exchange, magnesia bricks enhance the overall efficiency of glass furnaces.

Reduced Downtime

The durability and resistance to corrosion minimize furnace shutdowns for maintenance.

Increased Productivity

Stable and efficient operation allows for higher throughput in glass manufacturing.

Environmental Compliance

Magnesia-zirconia bricks enable glass manufacturers to meet stringent environmental regulations by avoiding the release of toxic Cr6+.

Conclusion

Magnesia refractory materials are indispensable for modern glass furnaces, combining advanced performance, environmental safety, and versatility. Their application in regenerator checkerwork and other furnace zones ensures optimal performance, longevity, and sustainability, making them a preferred choice for glass manufacturers worldwide.

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