Market Publishers

+44 20 8123 2220
info@marketpublishers.com

Refractories Market Report by Form (Shaped Refractories, Unshaped Refractories), Alkalinity (Acidic and Neutral, Basic), Manufacturing Process (Dry Press Process, Fused Cast, Hand Molded, Formed, Unformed), Composition (Clay-Based, Nonclay-Based), Refractory Mineral (Graphite, Magnesite, Chromite, Silica, High Alumina, Zirconia, and Others), Application (Iron and Steel, Cement, Non-Ferrous Metals, Glass, and Others), and Region 2024-2032

https://marketpublishers.com/r/R77942CF08ABEN.html
Date: March 2024
Pages: 123
Price: US$ 3,899.00 (Single User License)
ID: R77942CF08ABEN

Abstracts

The global refractories market size reached US$ 26.6 Billion in 2023. Looking forward, IMARC Group expects the market to reach US$ 37.7 Billion by 2032, exhibiting a growth rate (CAGR) of 3.8% during 2024-2032. The industrial expansion, technological advancements, infrastructure development, energy efficiency, and the unique properties of refractory materials for withstanding high temperatures and harsh conditions are some of the major factors propelling the market.

Refractories are specialized materials designed to withstand extreme heat and harsh conditions, commonly used in industries such as steel, glass, cement, and petrochemicals. These materials possess high melting points and excellent thermal insulating properties, making them essential for lining furnaces, kilns, and reactors. Refractories provide crucial protection against the intense temperatures and chemical reactions that occur in these industrial processes. They come in various forms, such as bricks, castables, and ceramics, tailored to specific applications. Their resistance to

heat and corrosion ensures the longevity and efficiency of industrial equipment, contributing significantly to the reliability and safety of high-temperature operations.

The global refractories market is experiencing robust growth driven by the continuous expansion of the construction, infrastructure, and manufacturing sectors worldwide, generating substantial demand for refractory materials. These industries heavily rely on refractories to line and protect high-temperature equipment such as blast furnaces, cement kilns, and glass melting tanks. In addition to this, the increasing adoption of advanced and energy-efficient technologies in various industrial processes necessitates the use of high-performance refractories to withstand elevated temperatures and chemical corrosion, aiding in market expansion. Moreover, the rise in infrastructure development and urbanization, particularly in emerging economies, is boosting demand for refractories in construction and housing, as these materials are essential for maintaining the integrity of structures like chimneys and fireplaces. Furthermore, the growing emphasis on sustainable and eco-friendly manufacturing processes has prompted innovations in refractory materials that reduce energy consumption and emissions, further fueling market expansion.

Refractories Market Trends/Drivers:
Industrial expansion and modernization

The continuous expansion and modernization of various industries are significant drivers for the global refractories market. Industries such as steel, cement, glass, petrochemicals, and non-ferrous metals rely heavily on refractory materials. As these sectors grow and upgrade their facilities, there is a growing need for refractories to line and protect high-temperature equipment, such as blast furnaces, rotary kilns, and glass melt tanks. This demand is particularly evident in emerging economies where rapid industrialization and infrastructure development are ongoing. In developed nations, refurbishing and upgrading aging infrastructure also contribute to the sustained demand for refractories.

Technological advancements and energy efficiency

Another key driver is the increasing adoption of advanced and energy-efficient technologies in industrial processes. Manufacturers are continually seeking ways to improve energy efficiency, reduce emissions, and enhance overall operational sustainability. Refractories play a critical role in these efforts by withstanding extreme temperatures and chemical reactions. New, high-performance refractory materials are developed to withstand the rigors of modern industrial processes, contributing to enhanced energy efficiency and reduced environmental impact. These innovations support industries' goals of meeting stringent environmental regulations and reducing their carbon footprint.

Infrastructure development and urbanization

The growth in infrastructure development and urbanization, particularly in emerging economies, is boosting demand for refractories in the construction and housing sectors. Refractory materials are essential for maintaining the integrity of structures like chimneys, fireplaces, and industrial incinerators. As more urban areas emerge and demand for durable, heat-resistant structures increases, the refractories market experiences steady growth. Additionally, the construction of residential and commercial buildings often requires refractory bricks and materials for fireproofing and insulation, further contributing to the market's expansion. This trend is closely linked to rising living standards and increased construction activities in developing regions.

Refractories Industry Segmentation:
IMARC Group provides an analysis of the key trends in each segment of the global refractories market report, along with forecasts at the global, regional, and country levels for 2024-2032. Our report has categorized the market based on form, alkalinity, manufacturing process, composition, refractory mineral, and application.

Breakup by Form:

Shaped Refractories
Unshaped Refractories

Unshaped refractories dominate the market

The report has provided a detailed breakup and analysis of the market based on the form. This includes shaped refractories and unshaped refractories. According to the report, unshaped refractories represented the largest segment.

The demand for unshaped refractories is mainly driven by their versatility and adaptability in complex industrial applications. Unshaped refractories, which come in the form of castables, plastics, and ramming mixes, offer a unique advantage in that they can be molded and applied to irregular shapes and spaces, providing optimal insulation and protection in various industrial settings. As a result, industries seeking efficient solutions for furnace linings, boiler insulation, and ladle linings are increasingly turning to unshaped refractories for their ability to conform to specific configurations, reducing installation time and labor costs while ensuring reliable thermal performance, creating a positive outlook for market growth.

Breakup by Alkalinity:

Acidic and Neutral
Basic

Acidic and neutral holds the largest share in the market

A detailed breakup and analysis of the market based on the alkalinity has also been provided in the report. This includes acidic and neutral and basic. According to the report, acidic and neutral accounted for the largest market share.

The surging demand for acidic and neutral refractories owing to their suitability for industries and processes that involve corrosive environments and acidic materials is contributing to the market’s growth. These refractories excel in applications where resistance to acidic slags or gases is critical, such as in the production of non-ferrous metals, petrochemical refining, and waste incineration, which is aiding in market expansion. Apart from this, acidic refractories, such as silica bricks, and neutral refractories, such as chromite or alumina-silica materials, offer robust protection against chemical erosion and high-temperature corrosion, making them indispensable in these specialized industries, which require durability and reliability even in harsh conditions.

Breakup by Manufacturing Process:

Dry Press Process
Fused Cast
Hand Molded
Formed
Unformed

Fused cast dominates the market

The report has provided a detailed breakup and analysis of the market based on the manufacturing process. This includes dry press process, fused cast, hand molded, formed, and unformed. According to the report, fused cast represented the largest segment.

The demand for refractories produced through the fused cast manufacturing process is primarily driven by their exceptional resistance to extreme temperatures and chemical corrosion. Fused cast refractories are manufactured by melting high-purity raw materials, including alumina and zirconia, and then cooling them to form dense, crystalline structures. This unique production method results in refractory materials with outstanding thermal stability and minimal porosity, making them ideal for applications in glass manufacturing, particularly in the construction of glass furnace sidewalls and tank blocks. The fused cast refractories' ability to withstand the severe conditions of molten glass and other corrosive substances has led to their increased adoption in the glass industry, fueling demand for these specialized refractory products.

Breakup by Composition:

Clay-Based
Nonclay-Based

Clay-based holds the largest share of the market

A detailed breakup and analysis of the market based on the composition has also been provided in the report. This includes clay-based and nonclay-based. According to the report, clay-based accounted for the largest market share.

The cost-effectiveness and versatility of clay-based refractories across a range of industries is presenting lucrative opportunities for market growth. Clay-based refractories, such as fire clay bricks and high-alumina bricks, offer a cost-efficient solution for applications where extreme resistance to temperature and chemical attack isn't as critical. They find extensive use in less severe environments, including foundries, boiler linings, and cement kilns. Their relative affordability, ease of production, and adaptability to various shapes and sizes make them a preferred choice for industries that require reliable thermal insulation and moderate resistance to wear and tear, sustaining the demand for these refractory materials.

Breakup by Refractory Mineral:

Graphite
Magnesite
Chromite
Silica

High Alumina
Zirconia
Others

Graphite dominates the market

The report has provided a detailed breakup and analysis of the market based on the refractory mineral. This includes graphite, magnesite, chromite, silica, high alumina, zirconia, and others. According to the report, graphite represented the largest segment.

Graphite refractories' exceptional thermal conductivity and resistance to high temperatures, making them indispensable in specific industrial applications, are acting as significant growth-inducing factors. Graphite refractories, composed primarily of graphite and clay, excel in environments with extreme heat, such as in electric arc furnaces and steelmaking processes. Their ability to efficiently conduct heat, maintain stability at high temperatures, and resist chemical corrosion by molten metals positions them as a critical choice in the metallurgical and steel industries. Additionally, their low thermal expansion and high mechanical strength contribute to their longevity and reliability in demanding thermal processes, sustaining the demand for graphite refractories in these sectors.

Breakup by Application:

Iron and Steel
Cement
Non-Ferrous Metals
Glass
Others

Iron and steel holds the largest share of the market

A detailed breakup and analysis of the market based on the application has also been provided in the report. This includes iron and steel, cement, non-ferrous metals, glass, and others. According to the report, iron and steel accounted for the largest market share.

The iron and steel sector's relentless pursuit of efficiency and cost-effectiveness is providing impetus to the market growth. Refractories play a vital role in maintaining the integrity of high-temperature equipment including blast furnaces, converters, and ladles.

As the iron and steel industry continuously seeks to optimize production processes and reduce energy consumption, the need for advanced refractories becomes paramount. These materials enable higher productivity, prolonged equipment lifespan, and reduced downtime, translating into substantial cost savings. Apart from this, refractories that can withstand extreme temperatures and chemical interactions are essential for ensuring product quality and safety in this critical sector, underpinning the persistent demand for refractories in iron and steel production.

Breakup by Region:

North America
United States
Canada
Asia-Pacific
China
Japan
India
South Korea
Australia
Indonesia
Others
Europe
Germany
France
United Kingdom
Italy
Spain
Russia
Others
Latin America
Brazil
Mexico
Others
Middle East and Africa

Asia Pacific exhibits a clear dominance, accounting for the largest refractories market share

The market research report has also provided a comprehensive analysis of all the major regional markets, which include North America (the United States and Canada); Asia Pacific (China, Japan, India, South Korea, Australia, Indonesia, and others); Europe (Germany, France, the United Kingdom, Italy, Spain, Russia, and others); Latin America (Brazil, Mexico, and others); and the Middle East and Africa. According to the report, Asia Pacific accounted for the largest market share.

Asia Pacific has assumed a leading position in the global refractories market for several compelling reasons. The region's dominance can be attributed to its thriving steel, cement, and glass industries, which are among the primary consumers of refractory products. Rapid industrialization and urbanization in countries like China and India have driven substantial demand for steel and cement, boosting the need for refractories in their production processes. Additionally, Asia Pacific's vast manufacturing base and robust infrastructure development contribute significantly to refractory consumption. The region benefits from a competitive advantage in terms of cost-effective production and a skilled labor force, making it an attractive hub for refractory manufacturing. Furthermore, the presence of abundant raw materials and a proactive approach toward research and development in refractories have further solidified Asia Pacific's leadership in the global market.

Competitive Landscape:

The global refractories market is characterized by intense competition among several key players and a few regional manufacturers. Leading companies dominate the market with a wide range of high-quality refractory products catering to diverse industrial needs. These industry giants often engage in strategic mergers, acquisitions, and partnerships to expand their product portfolios and global reach. Additionally, they invest heavily in research and development to innovate and offer advanced refractory solutions, which is essential to meet the evolving demands of energy efficiency and environmental sustainability. Furthermore, regional manufacturers and smaller players play a significant role, especially in catering to niche markets and offering specialized refractory products. Market competition is further shaped by factors like price sensitivity, product quality, and technological advancements, driving companies to continually improve and differentiate their offerings.

The report has provided a comprehensive analysis of the competitive landscape in the market. Detailed profiles of all major companies have also been provided. Some of the key players in the market include:

Chosun Refractories Eng Co. Ltd.
Compagnie de Saint-Gobain S.A.

Coorstek Inc.
Imerys Usa Inc.
Krosaki Harima Corporation
Morgan Advanced Materials Plc
Refratechnik Holding GmbH
RHI Magnesita GmbH
Vesuvius Plc

Recent Developments:
In July 2023, Morgan Thermal Ceramics expanded its Yixing plant, increasing capacity by over 50% to serve the needs of customers in China and other parts of Asia for insulating firebricks used in various industries, emphasizing energy efficiency and CO2 emission reduction in refractory production.
In April 2023, RHI Magnesita completed the acquisition of the operations of seven refractory companies in the United States, India, and Europe. This acquisition has significantly expanded RHI Magnesita's market portfolio, offering a wide range of solutions for global end-use applications.
In February 2023, Chosun Refractories Co Ltd and Sarvesh Refractories announced a joint venture to manufacture refractory products for steel companies, automobile companies, and chemical companies in India.

Key Questions Answered in This Report

1. How big is the global refractories market?
2. What is the expected growth rate of the global refractories market during 2024-2032?
3. What are the key factors driving the global refractories market?
4. What has been the impact of COVID-19 on the global refractories market?
5. What is the breakup of the global refractories market based on the form?
6. What is the breakup of the global refractories market based on the alkalinity?
7. What is the breakup of the global refractories market based on the manufacturing process?
8. What is the breakup of the global refractories market based on the composition?
9. What is the breakup of the global refractories market based on the refractory mineral?
10. What is the breakup of the global refractories market based on the application?
11. What are the key regions in the global refractories market?
12. Who are the key players/companies in the global refractories market?

Contents

+44 20 8123 2220
info@marketpublishers.com

+44 20 8123 2220
info@marketpublishers.com

12 MARKET BREAKUP BY REGION

12.1 North America
  12.1.1 United States
    12.1.1.1 Market Trends
    12.1.1.2 Market Forecast
  12.1.2 Canada
    12.1.2.1 Market Trends
    12.1.2.2 Market Forecast
12.2 Asia Pacific
  12.2.1 China
    12.2.1.1 Market Trends
    12.2.1.2 Market Forecast
  12.2.2 Japan
    12.2.2.1 Market Trends
    12.2.2.2 Market Forecast
  12.2.3 India
    12.2.3.1 Market Trends
    12.2.3.2 Market Forecast
  12.2.4 South Korea
    12.2.4.1 Market Trends
    12.2.4.2 Market Forecast
  12.2.5 Australia
    12.2.5.1 Market Trends
    12.2.5.2 Market Forecast
  12.2.6 Indonesia
    12.2.6.1 Market Trends
    12.2.6.2 Market Forecast
  12.2.7 Others
    12.2.7.1 Market Trends
    12.2.7.2 Market Forecast
12.3 Europe
  12.3.1 Germany
    12.3.1.1 Market Trends
    12.3.1.2 Market Forecast
  12.3.2 France
    12.3.2.1 Market Trends
    12.3.2.2 Market Forecast
  12.3.3 United Kingdom

List Of Tables

LIST OF TABLES

+44 20 8123 2220
info@marketpublishers.com

List Of Figures

LIST OF FIGURES

+44 20 8123 2220
info@marketpublishers.com

I would like to order

Product name: Refractories Market Report by Form (Shaped Refractories, Unshaped Refractories), Alkalinity (Acidic and Neutral, Basic), Manufacturing Process (Dry Press Process, Fused Cast, Hand Molded, Formed, Unformed), Composition (Clay-Based, Nonclay-Based), Refractory Mineral (Graphite, Magnesite, Chromite, Silica, High Alumina, Zirconia, and Others), Application (Iron and Steel, Cement, Non-Ferrous Metals, Glass, and Others), and Region 2024-2032

Product link: https://marketpublishers.com/r/R77942CF08ABEN.html

Price: US$ 3,899.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/R77942CF08ABEN.html

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

**All fields are required

Custumer signature _______________________________________

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms

+44 20 8123 2220
info@marketpublishers.com

& Conditions at https://marketpublishers.com/docs/terms.html

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970