

# Frac Sand Market Size, Share, Trends and Forecast by Type, Application, and Region, 2026-2034

<https://marketpublishers.com/r/FD890718F943EN.html>

Date: April 2026

Pages: 141

Price: US\$ 3,999.00 (Single User License)

ID: FD890718F943EN

## Abstracts

The global frac sand market size was valued at USD 8.7 Billion in 2025. Looking forward, IMARC Group estimates the market to reach USD 16.3 Billion by 2034, exhibiting a CAGR of 6.98% during 2026-2034. North America currently dominates the market. The market is experiencing consistent growth, particularly in hydraulic fracturing activities, driven by swift technological progress and enhancements in efficiency. This growth is further fueled by the increasing demand for oil and gas exploration, alongside the expansion of infrastructure in developing oil and gas areas.

The global frac sand market is driven by increasing hydraulic fracturing activities in the oil and gas industry, particularly in shale exploration. Along with this, rising energy demand, technological advancements in fracking techniques, and the growing adoption of horizontal drilling are further propelling the frac sand market share. On 28 th January 2025, MATCOR, a BrandSafway company, re-launched its patented Iron Gopher linear anode for horizontal directional drilling (HDD) at a lower price after moving the production inhouse. It improves quality, eliminates supply chain delays, reduces costs, and makes this anode more affordable without compromising strength or reliability. Additionally, the expansion of unconventional oil and gas resources, coupled with investments in infrastructure and transportation, supports market expansion. Besides this, the availability of high-quality silica sand and favorable government policies promoting energy independence also contribute to demand. Moreover, environmental concerns and regulatory constraints are necessitating sustainable practices and innovations in proppant alternatives.

The U.S. frac sand market is expanding due to the rising adoption of hydraulic fracturing in shale oil and gas extraction. In 2023, the United States achieved a historic milestone by averaging 12.9 million barrels per day (b/d) of crude oil production, surpassing its

previous record of 12.3 million b/d set in 2019. Together, the U.S., Russia, and Saudi Arabia represented 40% of the world's total oil production, amounting to 32.8 million b/d, with the U.S. taking the lead due to innovations in hydraulic fracturing and horizontal drilling techniques. Notably, U.S. crude production reached a peak of over 13.3 million b/d in December 2023, exceeding Saudi Arabia's maximum production capacity of 12.3 million b/d. Concurrently, increased drilling activity, particularly in regions such as Texas and North Dakota, is amplifying demand for high-quality sand. Advancements in drilling technology and efficiency improvements are further strengthening the market growth. Concurrently, the presence of abundant sand reserves and well-developed transportation networks supports supply chain optimization. Furthermore, favorable government policies promoting domestic energy production also play a crucial role in the frac sand market outlook.

## FRAC SAND MARKET TRENDS:

### Growing Demand in Hydraulic Fracturing Operations

The main catalyst for market growth is the increasing demand in the hydraulic fracturing (fracking) sector. Frac sand plays an essential role as a proppant in this procedure, which involves the injection of high-pressure fluid into subterranean rock formations to facilitate the release and extraction of oil and natural gas. According to the U.S. Energy Information Administration (EIA), the number of horizontal wells drilled in the U.S. increased by 50% from 2016 to 2022, reflecting the increased reliance on hydraulic fracturing to extract oil and gas. As global energy demands continue to rise, particularly with the increasing reliance on unconventional oil and gas reservoirs, the need for the product is amplified. The expansion of hydraulic fracturing activities across regions such as North America has been a significant catalyst for the market's growth. Additionally, the environmental and regulatory considerations associated with fracking are driving innovation in frac sand technologies to minimize environmental impact.

### Rapid Technological Advancements and Efficiency Improvements

Ongoing technological advancements and efficiency improvements in the extraction of oil and gas have contributed significantly to the frac sand market demand. Innovations in fracking techniques, such as horizontal drilling and multi-stage hydraulic fracturing, have led to increased sand consumption per well. According to the U.S. Energy Information Administration (EIA), the average amount of frac sand used per horizontal well increased by 50% between 2017 and 2022. As a result, the demand for higher-quality frac sand, including finer grains and resin-coated sand, has increased. The

demand for finer, high-quality frac sand has risen as operators seek to enhance well productivity and maximize hydrocarbon recovery. This evolution in technology has created a shift towards the use of resin-coated sand and other specialized proppants, further influencing market trends. Moreover, the integration of digital monitoring and automation systems in fracking operations has improved precision and reduced downtime, enhancing overall efficiency.

### Rising Infrastructure Development in Emerging Oil and Gas Regions

Infrastructure development in emerging oil and gas regions is one of the significant frac sand market trends. As exploration and production activities expand into previously untapped areas, the need for reliable and efficient transportation networks for frac sand becomes paramount. The U.S. Securities and Exchange Commission reported that in the second quarter of 2024, revenues for a commodity group, including frac sand, risen by 6% compared to the same period in 2023, primarily due to higher volumes. Investment in rail, road, and port facilities to support the movement of sand from mines to well sites is also an important investment by industry players. In addition, logistics infrastructure establishment adequately responds to the rising demand for the product in new and developing energy reservoirs. Moreover, environmentally friendly considerations in terms of minimizing carbon emissions in the logistics of frac sands have been emerging as concerns that necessitate the optimization of transportation routes.

### FRAC SAND INDUSTRY SEGMENTATION:

IMARC Group provides an analysis of the key trends in each segment of the global frac sand market, along with forecast at the global, regional, and country levels from 2026-2034. The market has been categorized based on type and application.

#### Analysis by Type:

White Sand

Brown Sand

Others

White sand leads the market with around 45.7% of the market share in 2025, due to its

superior quality, high purity, and strong crush resistance. Composed primarily of high-purity quartz, it is widely preferred in hydraulic fracturing operations for its ability to enhance oil and gas extraction efficiency. Its uniform grain size, round shape, and durability make it ideal for proppant applications, ensuring better permeability and conductivity in fractured rock formations. The rising demand for energy, coupled with the increasing adoption of hydraulic fracturing techniques, continues to drive frac sand market growth. North America, particularly the United States, remains the leading consumer of white frac sand, with major shale formations such as the Permian Basin fueling its high demand.

#### Analysis by Application:

Oil Exploitation

Natural Gas Exploration

Others

Natural gas exploration leads the market with around 67.1% of the market share in 2025. Natural gas exploration stands out as the largest segment in the market based on application. Frac sand plays a pivotal role in hydraulic fracturing activities associated with natural gas extraction from unconventional reserves, such as shale formations. The proppant qualities of sand are essential for creating fractures that enhance permeability, allowing for the efficient flow of natural gas. With the growing emphasis on natural gas as a cleaner energy source and the increasing exploration of unconventional gas reservoirs, the demand for this sand in natural gas exploration continues to rise, making it a key driver in the market's expansion. The effectiveness of frac sand in optimizing the extraction of natural gas positions it as a critical component in the success of hydraulic fracturing operations within the natural gas sector.

#### Regional Analysis:

North America

Asia Pacific

Europe

Middle East and Africa

Latin America

In 2025, North America accounted for the largest market share, driven by the rapid expansion of hydraulic fracturing and horizontal drilling in the region. The United States, in particular, dominates demand, with major shale basins such as the Permian, Eagle Ford, and Bakken fueling significant consumption. The region's abundant natural sand reserves, advanced extraction technologies, and well-established energy sector contribute to its market leadership. Increased investments in oil and gas exploration, along with the growing need for high-quality proppants, further enhance demand. Additionally, the presence of key frac sand suppliers and logistical advantages, such as proximity to shale formations, enhance North America's position as the largest regional segment. As energy production rises, the demand for frac sand is expected to remain strong.

#### KEY REGIONAL TAKEAWAYS:

#### UNITED STATES FRAC SAND MARKET ANALYSIS

In 2025, the US accounted for around 89.70% of the total North America frac sand market. The market is expanding hugely due to a significant rise in drilling activities of oil and gas and advancing hydraulic fracturing technology. Based on the EIA, in 2023, the U.S. produced 12.9 million barrels of oil per day, making shale formations one of the top consumers of frac sand. This demand is also supplemented by an increase in the number of active drilling rigs. Baker Hughes estimates that the number of such rigs in 2023 would be around 700. Players such as U.S. Silica and Hi-Crush have managed to produce and meet the demand with facilities located across important regions, including Texas and Wisconsin. In-basin production has been able to decrease transportation costs and increase access to markets. Innovations in technology and consolidation of the sand mining industry also drive market dynamics. This is enhanced with more efficient extraction methods for growing operators' needs in shale plays.

#### EUROPE FRAC SAND MARKET ANALYSIS

The market in Europe is growing with the increase in oil and gas exploration activities, especially in unconventional reservoirs. According to the European Petroleum Survey Group, unconventional oil production is really picking up steam, especially in countries

including the UK and Norway. Europe is producing less volume than the U.S., but exploratory activity is increasing in the North Sea and shale gas opportunities are growing in Poland and Hungary, which enhance demand for frac sand. Based on data from Rigzone, at the end of 2023, about 115 drilling rigs were working in Europe. The demand for quality sand is increasing, with companies focusing on advanced frac sand production and logistics to ensure supply in critical regions. In addition, stricter environmental regulations are driving technological innovations, leading to cleaner, more sustainable frac sand mining operations. Local suppliers are focusing on improving logistics capabilities and entering strategic partnerships to provide frac sand that meets the specifications required for hydraulic fracturing.

## ASIA PACIFIC FRAC SAND MARKET ANALYSIS

With growing exploration for oil and gas in China, India, and Australia, among other Asia-Pacific countries, demand in the market has witnessed growth. In fact, international agencies, including the International Energy Agency, expect that in 2022 China alone would be consuming approximately 15 million barrels a day in terms of oil and gas. Indian demand is likely to continue to rise 4% yearly, offering an expanded demand opportunity for the frac sand producers. The company is concentrating efforts on the enlargement of its manufacturing plant in major places such as Queensland, Australia, with the rise of shale gas explorations in this region. It is in light of these conditions that high-grade frac sand finds more application. Increased investment in Asian infrastructures as well as capacity of local productions and the regional Asian oil and gas suppliers moving closer towards country-by-country manufacturing are also gaining importance in Asian markets.

## LATIN AMERICA FRAC SAND MARKET ANALYSIS

Frac sand market is becoming larger as Latin American countries continue to explore and develop shale gas reserves in regions such as Brazil and Argentina. As of the report by Latin American Energy Organization, Argentina has one of the largest shale plays in the world, known as Vaca Muerta, driving up the demand for frac sand in that region. Argentina shale oil and gas production rose 8% in 2023, thus increasing the demand for frac sand. Brazil is also expanding its oil industry, with deepwater offshore reserves, and increased frac sand usage in hydraulic fracturing. Local players are improving their capacities to cater to regional demand, and international players are investing in Latin American operations to support growing exploration activities. In addition, Latin American countries are focusing on developing sustainable mining practices to address the environmental concerns and ensure a reliable supply of frac

sand for the energy sector.

## MIDDLE EAST AND AFRICA FRAC SAND MARKET ANALYSIS

This frac sand market in the MEA is being shaped by increases in oil and gas exploration happening in Saudi Arabia, the UAE, South Africa, etc. According to the International Energy Agency, Saudi Arabia was producing around 9.5 million barrels per day in 2023, which still reflected a production cut due to OPEC+, but was yet to drive steady demand for frac sand in hydraulic fracturing in an unconventional reservoir. In South Africa, shale gas exploration in the Karoo Basin continues to drive frac sand demand. Companies are investing in supply chain infrastructure that would fill the needs of operators in these regions. But the market itself has challenges such as transportation logistics, in addition to the free-thrown high cost of importing frac sand into the region. Growing interest in the development of shale oil and expanded oilfields in Africa is pushing the market forward, as local producers concentrate on building up their capacity to supply exploration activities.

### COMPETITIVE LANDSCAPE:

The key players in the market are actively engaged in strategic initiatives to enhance their market position and meet changing industry demands. These industry leaders focus on operational efficiency, cost optimization, and ensuring a consistent supply of high-quality frac sand to oil and gas exploration activities. Investments aimed at enhancing production capacities, optimizing logistics and distribution systems, and investigating sustainable mining methods are prevalent strategies. Furthermore, due to the cyclical characteristics of the oil and gas sector, major stakeholders diligently observe market trends, modify production levels as necessary, and broaden their product range to meet the diverse proppant needs of hydraulic fracturing activities globally. Their strategic initiatives are designed to sustain competitiveness, respond to environmental concerns, and adapt to the transforming dynamics of the global energy market.

The report provides a comprehensive analysis of the competitive landscape in the frac sand market with detailed profiles of all major companies, including:

CARBO Ceramics

Emerge Energy Services

Covia Holdings

Hi Crush

Source Energy Services

U.S Silica

Preferred Sands

Badger Mining Corporation

Mammoth Energy Service, Inc.

Smart Sand Inc.

Chongqing Changjiang

#### KEY QUESTIONS ANSWERED IN THIS REPORT

1. How big is the frac sand market?
2. What is the future outlook of the frac sand market?
3. What are the key factors driving the frac sand market?
4. Which region accounts for the largest frac sand market share?
5. Which are the leading companies in the global frac sand market?

## Contents

### **1 PREFACE**

### **2 SCOPE AND METHODOLOGY**

- 2.1 Objectives of the Study
- 2.2 Stakeholders
- 2.3 Data Sources
  - 2.3.1 Primary Sources
  - 2.3.2 Secondary Sources
- 2.4 Market Estimation
  - 2.4.1 Bottom-Up Approach
  - 2.4.2 Top-Down Approach
- 2.5 Forecasting Methodology

### **3 EXECUTIVE SUMMARY**

### **4 INTRODUCTION**

- 4.1 Overview
- 4.2 Key Industry Trends

### **5 GLOBAL FRAC SAND MARKET**

- 5.1 Market Overview
- 5.2 Market Performance
- 5.3 Impact of COVID-19
- 5.4 Market Breakup by Type
- 5.5 Market Breakup by Application
- 5.6 Market Breakup by Region
- 5.7 Market Forecast

### **6 MARKET BREAKUP BY TYPE**

- 6.1 White Sand
  - 6.1.1 Market Trends
  - 6.1.2 Market Forecast
- 6.2 Brown Sand

- 6.2.1 Market Trends
- 6.2.2 Market Forecast
- 6.3 Others
  - 6.3.1 Market Trends
  - 6.3.2 Market Forecast

## **7 MARKET BREAKUP BY APPLICATION**

- 7.1 Oil Exploitation
  - 7.1.1 Market Trends
  - 7.1.2 Market Forecast
- 7.2 Natural Gas Exploration
  - 7.2.1 Market Trends
  - 7.2.2 Market Forecast
- 7.3 Others
  - 7.3.1 Market Trends
  - 7.3.2 Market Forecast

## **8 MARKET BREAKUP BY REGION**

- 8.1 North America
  - 8.1.1 Market Trends
  - 8.1.2 Market Forecast
- 8.2 Asia Pacific
  - 8.2.1 Market Trends
  - 8.2.2 Market Forecast
- 8.3 Europe
  - 8.3.1 Market Trends
  - 8.3.2 Market Forecast
- 8.4 Middle East and Africa
  - 8.4.1 Market Trends
  - 8.4.2 Market Forecast
- 8.5 Latin America
  - 8.5.1 Market Trends
  - 8.5.2 Market Forecast

## **9 SWOT ANALYSIS**

- 9.1 Overview

- 9.2 Strengths
- 9.3 Weaknesses
- 9.4 Opportunities
- 9.5 Threats

## **10 VALUE CHAIN ANALYSIS**

## **11 PORTERS FIVE FORCES ANALYSIS**

- 11.1 Overview
- 11.2 Bargaining Power of Buyers
- 11.3 Bargaining Power of Suppliers
- 11.4 Degree of Competition
- 11.5 Threat of New Entrants
- 11.6 Threat of Substitutes

## **12 PRICE ANALYSIS**

## **13 MANUFACTURING PROCESS**

## **14 COMPETITIVE LANDSCAPE**

- 14.1 Market Structure
- 14.2 Key Players
- 14.3 Profiles of Key Players
  - 14.3.1 CARBO Ceramics
  - 14.3.2 Emerge Energy Services
  - 14.3.3 Covia Holdings
  - 14.3.4 Hi Crush
  - 14.3.5 Source Energy Services
  - 14.3.6 U.S Silica
  - 14.3.7 Preferred Sands
  - 14.3.8 Badger Mining Corporation
  - 14.3.9 Mammoth Energy Service, Inc
  - 14.3.10 Smart Sand Inc.
  - 14.3.11 Chongqing Changjiang

## List Of Tables

### LIST OF TABLES

Figure 1: Global: Frac Sand Market: Major Drivers and Challenges

Figure 2: Global: Frac Sand Market: Sales Value (in Billion USD), 2020-2025

Figure 3: Global: Frac Sand Market: Breakup by Type (in %), 2025

Figure 4: Global: Frac Sand Market: Breakup by Application (in %), 2025

Figure 5: Global: Frac Sand Market: Breakup by Region (in %), 2025

Figure 6: Global: Frac Sand Market Forecast: Sales Value (in Billion USD), 2026-2034

Figure 7: Global: Frac Sand Industry: SWOT Analysis

Figure 8: Global: Frac Sand Industry: Value Chain Analysis

Figure 9: Global: Frac Sand Industry: Porter's Five Forces Analysis

Figure 10: Global: Frac Sand (White Sand) Market: Sales Value (in Million USD), 2020 & 2025

Figure 11: Global: Frac Sand (White Sand) Market Forecast: Sales Value (in Million USD), 2026-2034

Figure 12: Global: Frac Sand (Brown Sand) Market: Sales Value (in Million USD), 2020 & 2025

Figure 13: Global: Frac Sand (Brown Sand) Market Forecast: Sales Value (in Million USD), 2026-2034

Figure 14: Global: Frac Sand (Other Types) Market: Sales Value (in Million USD), 2020 & 2025

Figure 15: Global: Frac Sand (Other Types) Market Forecast: Sales Value (in Million USD), 2026-2034

Figure 16: Global: Frac Sand (Oil Exploitation) Market: Sales Value (in Million USD), 2020 & 2025

Figure 17: Global: Frac Sand (Oil Exploitation) Market Forecast: Sales Value (in Million USD), 2026-2034

Figure 18: Global: Frac Sand (Natural Gas Exploration) Market: Sales Value (in Million USD), 2020 & 2025

Figure 19: Global: Frac Sand (Natural Gas Exploration) Market Forecast: Sales Value (in Million USD), 2026-2034

Figure 20: Global: Frac Sand (Other Applications) Market: Sales Value (in Million USD), 2020 & 2025

Figure 21: Global: Frac Sand (Other Applications) Market Forecast: Sales Value (in Million USD), 2026-2034

Figure 22: North America: Frac Sand Market: Sales Value (in Million USD), 2020 & 2025

Figure 23: North America: Frac Sand Market Forecast: Sales Value (in Million USD),

2026-2034

Figure 24: Asia Pacific: Frac Sand Market: Sales Value (in Million USD), 2020 & 2025

Figure 25: Asia Pacific: Frac Sand Market Forecast: Sales Value (in Million USD),  
2026-2034

Figure 26: Europe: Frac Sand Market: Sales Value (in Million USD), 2020 & 2025

Figure 27: Europe: Frac Sand Market Forecast: Sales Value (in Million USD),  
2026-2034

Figure 28: Middle East and Africa: Frac Sand Market: Sales Value (in Million USD),  
2020 & 2025

Figure 29: Middle East and Africa: Frac Sand Market Forecast: Sales Value (in Million  
USD), 2026-2034

Figure 30: Latin America: Frac Sand Market: Sales Value (in Million USD), 2020 & 2025

Figure 31: Latin America: Frac Sand Market Forecast: Sales Value (in Million USD),  
2026-2034

## List Of Figures

### LIST OF FIGURES

Table 1: Global: Frac Sand Market: Key Industry Highlights, 2025 & 2034

Table 2: Global: Frac Sand Market Forecast: Breakup by Type (in Million USD), 2026-2034

Table 3: Global: Frac Sand Market Forecast: Breakup by Application (in Million USD), 2026-2034

Table 4: Global: Frac Sand Market Forecast: Breakup by Region (in Million USD), 2026-2034

Table 5: Global: Frac Sand Market Structure

Table 6: Global: Frac Sand Market: Key Players

## I would like to order

Product name: Frac Sand Market Size, Share, Trends and Forecast by Type, Application, and Region, 2026-2034

Product link: <https://marketpublishers.com/r/FD890718F943EN.html>

Price: US\$ 3,999.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/FD890718F943EN.html>