

# **Tungsten Carbide Market Report by Grade (General Purpose, Metal Forming and Wear, Rotary Drilling and Mining, Submicron, Corrosion Resistant), Application (Machine Tools and Components, Cutting Tools, Dies and Punches, Abrasive Products, and Others), Industry Vertical (Aerospace and Defense, Automotive, Mining and Construction, Electronics, and Others), and Region 2024-2032**

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## **Abstracts**

The global tungsten carbide market size reached US\$ 20.5 Billion in 2023. Looking forward, IMARC Group expects the market to reach US\$ 32.7 Billion by 2032, exhibiting a growth rate (CAGR) of 5.13% during 2024-2032.

Tungsten carbide (WC) is a dense, light gray, and metal-like inorganic chemical compound synthesized by heating tungsten with carbon black in the presence of hydrogen. It can be pressed and shaped into various geometries through the process of sintering. Tungsten carbide is widely used in industrial equipment, cutting tools, jewelry, abrasives, armor-piercing shells, alloys, coatings, and mill products. It is a highly durable material that offers increased strength, low electrical resistivity, high melting and boiling temperature, improved hardness, and resistance to abrasion, heat, scratch, and rust. As a result, tungsten carbide finds extensive applications across the aerospace and defense, automotive, mining and construction, electronics, sports, and medical industries.

Tungsten Carbide Market Trends:

The significant growth in the automotive industry is creating a positive outlook for the market. Tungsten carbide is widely used to produce high-performance auto parts that can withstand high stress and heat, such as ball joints, brakes, crankshafts, and studs for tires. In addition, the widespread product utilization to make cutting tools that are used to manufacture automotive engines, transmissions, axels, and steering assemblies is acting as another growth-inducing factor. Furthermore, increasing demand for tungsten carbide in the drilling and mining industry for producing drill bits, roller cutters, downhole hammers, and tunnel boring machines is providing a considerable boost to the market growth. Additionally, the rising product adoption in three-dimensional (3D) printing for creating efficient and cost-effective high-performance parts is facilitating the market growth. Moreover, widespread product utilization in the medical sector to produce surgical instruments, such as scissors, forceps, blade handles, hemostats, graspers, needle holders, and cautery, is providing an impetus to the market growth. Other factors, including increasing recycling of product scarp, rising incorporation of the compound in sports gear, and significant growth in the construction industry, are anticipated to drive the market growth.

#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global tungsten carbide market report, along with forecasts at the global, regional and country levels from 2024-2032. Our report has categorized the market based on grade, application and industry vertical.

#### Breakup by Grade:

General Purpose

Metal Forming and Wear

Rotary Drilling and Mining

Submicron

Corrosion Resistant

#### Breakup by Application:

Machine Tools and Components

Cutting Tools

Dies and Punches

Abrasive Products

Others

Breakup by Industry Vertical:

Aerospace and Defense

Automotive

Mining and Construction

Electronics

Others

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

### Competitive Landscape:

The competitive landscape of the industry has also been examined along with the

*Tungsten Carbide Market Report by Grade (General Purpose, Metal Forming and Wear, Rotary Drilling and Mining,...*

profiles of the key players being American Elements, Ceratizit S.A (Plansee SE), Extramet AG, Federal Carbide Company, H.C. Starck Tungsten GmbH, Japan New Metal Co. Ltd., Jiangxi Yaosheng Tungsten Company Ltd., Kennametal Inc., Merck KGaA, OC Oerlikon Management AG, Reade International Corp., Sumitomo Electric Industries Ltd. and Umicore N.V.

#### Key Questions Answered in This Report:

How has the global tungsten carbide market performed so far and how will it perform in the coming years?

What has been the impact of COVID-19 on the global tungsten carbide market?

What are the key regional markets?

What is the breakup of the market based on the grade?

What is the breakup of the market based on the application?

What is the breakup of the market based on the industry vertical?

What are the various stages in the value chain of the industry?

What are the key driving factors and challenges in the industry?

What is the structure of the global tungsten carbide market and who are the key players?

What is the degree of competition in the industry?

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