

Global Superhard Materials Market Research Report 2016-2026

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Abstracts

SUMMARY

A superhard material is a material with a hardness value exceeding 40 gigapascals (GPa) when measured by the Vickers hardness test. Highly incompressible solids with high electron density and high bond covalency. As a result of their unique properties, these materials are of great interest in many industrial areas including, abrasives, polishing and cutting tools and wear-resistant and protective coatings. The hardness of a material is directly related to its incompressibility, elasticity and resistance to change in shape. A superhard material has high shear modulus, high bulk modulus and does not deform plastically. Should have a defect-free, isotropic lattice. This greatly reduces structural deformations that can lower the strength of the material. Traditionally, highpressure and high-temperature (HPHT) conditions have been used to synthesize superhard materials, but recent superhard material syntheses aim at using less energy and lower cost materials. Vickers hardness of selected hard materials Material Vickers hardness (GPa) Diamond 115 c-BC2N 76 c-BN 48 OsB2 37 B4C 30 ReB2 ~20 Superhard material industry chain mainly involves the following three aspects: monocrystalline superhard materials (including diamond, cubic boron nitride, etc.), composite superhard materials (including clad sheet for cutting tools, clad sheet for oil/gas, clad sheet and wire drawing die blanks used for coal/mining) and super-hard materials and tools (including diamond saw blades, polycrystalline diamond drawing dies and drills, etc.)

The global Superhard Materials market will reach xxx Million USD in 2021 with CAGR xx% 2021-2026. The objective of report is to define, segment, and project the market on the basis of product type, application, and region, and to describe the content about the factors influencing market dynamics, policy, economic, technology and market entry etc.



Based on products type, the report describes major products type share of regional market. Products mentioned as follows:

Diamond

CBN

Others

Leading vendors in the market are included based on profile, business performance etc. Vendors mentioned as follows:

Sandvik Element Six Sumitomo Electric

ILJIN

Zhongnan Diamond,

Henan Huanghe Whirlwind

SF Diamond

Zhengzhou Sino-Crystal Diamond

FUNIK

Based on Application, the report describes major application share of regional market. Application mentioned as follows:

Stone and Construction

Abrasives category



Composite polycrystalline tool

Others

Based on region, the report describes major regions market by products and application. Regions mentioned as follows:

Asia-Pacific North America Europe

South America

Middle East & Africa



Contents

1 MARKET OVERVIEW

1.1 Objectives of Research
1.1.1 Definition
Figure Superhard Materials Picture
1.1.2 Specifications
Table Product Specifications of Superhard Materials
1.2 Market Segment
1.2.1 by Type
Table Products Segment of Superhard Materials
Table Global Superhard Materials Market by Type, 2016-2026 (USD Million)
1.2.1.1 Diamond
Table Diamond Overview
1.2.1.2 CBN
Table CBN Overview
1.2.1.3 Others
Table Others Overview
1.2.2 by Application
Table Application Segment of Superhard Materials
Table Global Superhard Materials Market by Application, 2016-2026 (USD Million)
1.2.2.1 Stone and Construction
Table Stone and Construction Overview
1.2.2.2 Abrasives category
Table Abrasives category Overview
1.2.2.3 Composite polycrystalline tool
Table Composite polycrystalline tool Overview
1.2.2.4 Others
Table Others Overview
1.2.3 by Regions
Table Global Superhard Materials Market by Region, 2016-2026 (USD Million)

2 INDUSTRY CHAIN

2.1 Industry Chain StructureFigure Industry Chain Structure of Superhard Materials2.2 UpstreamTable Cost of Superhard Materials



Figure Manufacturing Process of Superhard Materials 2.3 Market 2.3.1 SWOT Figure SWOT of Superhard Materials 2.3.2 Dynamics Table Market Dynamics

3 ENVIRONMENTAL ANALYSIS

3.1 Policy
Table Policy of Superhard Materials
3.2 Economic
Table GDP of Major Countries
3.3 Technology
Table Technology of Superhard Materials
3.4 Market Entry
Table Market Entry of Superhard Materials

4 MARKET SEGMENTATION BY TYPE

4.1 Market Size

4.1.1 Diamond Market, 2016-2020

Figure Diamond Market Size and Growth, 2016-2020 (USD Million) Figure Diamond Market Size and Growth, 2016-2020 (in Volume) Table Diamond CAGR by Revenue and Volume, 2016-2020 4.1.2 CBN Market, 2016-2020 Figure CBN Market Size and Growth, 2016-2020 (USD Million) Figure CBN Market Size and Growth, 2016-2020 (in Volume) Table CBN CAGR by Revenue and Volume, 2016-2020 4.1.3 Others Market, 2016-2020 Figure Others Market Size and Growth, 2016-2020 (USD Million) Figure Others Market Size and Growth, 2016-2020 (USD Million) Figure Others Market Size and Growth, 2016-2020 (in Volume) Table Others CAGR by Revenue and Volume, 2016-2020 4.2 Market Forecast 4.2.1 Diamond Market Forecast, 2021-2026 Figure Diamond Market Estimates and Forecasts, 2021-2026 (USD Million)

Figure Diamond Market Estimates and Forecasts, 2021-2026 (in Volume)

Table Diamond CAGR by Revenue and Volume, 2016-2026

4.2.2 CBN Market Forecast, 2021-2026



Figure CBN Market Estimates and Forecasts, 2021-2026 (USD Million) Figure CBN Market Estimates and Forecasts, 2021-2026 (in Volume) Table CBN CAGR by Revenue and Volume, 2016-2026 4.2.3 Others Market Forecast, 2021-2026 Figure Others Market Estimates and Forecasts, 2021-2026 (USD Million) Figure Others Market Estimates and Forecasts, 2021-2026 (in Volume) Table Others CAGR by Revenue and Volume, 2016-2026

5 MARKET SEGMENTATION BY APPLICATION

5.1 Market Size

5.1.1 Stone and Construction Market, 2016-2020 Figure Stone and Construction Market Size and Growth, 2016-2020 (USD Million) Figure Market Size and Growth, 2016-2020 (in Volume) Table Stone and Construction CAGR by Revenue and Volume, 2016-2020 5.1.2 Abrasives category Market, 2016-2020 Figure Abrasives category Market Size and Growth, 2016-2020 (USD Million) Figure Market Size and Growth, 2016-2020 (in Volume) Table Abrasives category CAGR by Revenue and Volume, 2016-2020 5.1.3 Composite polycrystalline tool Market, 2016-2020 Figure Composite polycrystalline tool Market Size and Growth, 2016-2020 (USD Million) Figure Market Size and Growth, 2016-2020 (in Volume) Table Composite polycrystalline tool CAGR by Revenue and Volume, 2016-2020 5.1.4 Others Market, 2016-2020 Figure Others Market Size and Growth, 2016-2020 (USD Million) Figure Market Size and Growth, 2016-2020 (in Volume) Table Others CAGR by Revenue and Volume, 2016-2020 5.2 Market Forecast 5.2.1 Stone and Construction Market Forecast, 2021-2026 Figure Stone and Construction Market Estimates and Forecasts, 2021-2026 (USD Million) Figure Stone and Construction Market Estimates and Forecasts, 2021-2026 (in Volume) Table Stone and Construction CAGR by Revenue and Volume, 2021-2026 5.2.2 Abrasives category Market Forecast, 2021-2026 Figure Abrasives category Market Estimates and Forecasts, 2021-2026 (USD Million) Figure Abrasives category Market Estimates and Forecasts, 2021-2026 (in Volume) Table Abrasives category CAGR by Revenue and Volume, 2021-2026 5.2.3 Composite polycrystalline tool Market Forecast, 2021-2026

Figure Composite polycrystalline tool Market Estimates and Forecasts, 2021-2026



(USD Million)

Figure Composite polycrystalline tool Market Estimates and Forecasts, 2021-2026 (in Volume)

Table Composite polycrystalline tool CAGR by Revenue and Volume, 2021-2026 5.2.4 Others Market Forecast, 2021-2026

Figure Others Market Estimates and Forecasts, 2021-2026 (USD Million)

Figure Others Market Estimates and Forecasts, 2021-2026 (in Volume)

Table Others CAGR by Revenue and Volume, 2021-2026

6 MARKET SEGMENTATION BY REGION

6.1 Market Size

6.1.1 Asia-Pacific

6.1.1.1 Asia-Pacific Market, 2016-2020

Figure Asia-Pacific Market Size and Growth, 2016-2020 (USD Million) Figure Asia-Pacific Market Size and Growth, 2016-2020 (in Volume) Table Asia-Pacific CAGR by Revenue and Volume, 2016-2020

- 6.1.1.2 Asia-Pacific Market by Type Figure Asia-Pacific Market Size by Type Figure Asia-Pacific Market Share by Type
- 6.1.1.3 Asia-Pacific Market by Application Figure Asia-Pacific Market Size by Application

Figure Asia-Pacific Market Share by Application

6.1.2 North America

6.1.2.1 North America Market, 2016-2020 Figure North America Market Size and Growth, 2016-2020 (USD Million) Figure North America Market Size and Growth, 2016-2020 (in Volume) Table North America CAGR by Revenue and Volume, 2016-2020

6.1.2.2 North America Market by Type Figure North America Market Size by Type Figure North America Market Share by Type

6.1.2.3 North America Market by Application Figure North America Market Size by Application Figure North America Market Share by Application

6.1.3 Europe

6.1.3.1 Europe Market, 2016-2020 Figure Europe Market Size and Growth, 2016-2020 (USD Million) Figure Europe Market Size and Growth, 2016-2020 (in Volume) Table Europe CAGR by Revenue and Volume, 2016-2020



6.1.3.2 Europe Market by Type Figure Europe Market Size by Type Figure Europe Market Share by Type 6.1.3.3 Europe Market by Application Figure Europe Market Size by Application Figure Europe Market Share by Application 6.1.4 South America 6.1.4.1 South America Market, 2016-2020 Figure South America Market Size and Growth, 2016-2020 (USD Million) Figure South America Market Size and Growth, 2016-2020 (in Volume) Table South America CAGR by Revenue and Volume, 2016-2020 6.1.4.2 South America Market by Type Figure South America Market Size by Type Figure South America Market Share by Type 6.1.4.3 South America Market by Application Figure South America Market Size by Application Figure South America Market Share by Application 6.1.5 Middle East & Africa 6.1.5.1 Middle East & Africa Market, 2016-2020 Figure Middle East & Africa Market Size and Growth, 2016-2020 (USD Million) Figure Middle East & Africa Market Size and Growth, 2016-2020 (in Volume) Table Middle East & Africa CAGR by Revenue and Volume, 2016-2020 6.1.5.2 Middle East & Africa Market by Type Figure Middle East & Africa Market Size by Type Figure Middle East & Africa Market Share by Type 6.1.5.3 Middle East & Africa Market by Application Figure Middle East & Africa Market Size by Application Figure Middle East & Africa Market Share by Application 6.2 Market Forecast 6.2.1 Asia-Pacific Market Forecast, 2021-2026 Figure Asia-Pacific Market Estimates and Forecasts, 2021-2026 (USD Million) Figure Asia-Pacific Market Estimates and Forecasts, 2021-2026 (in Volume) Table Asia-Pacific CAGR by Revenue and Volume, 2021-2026 6.2.2 North America Market Forecast, 2021-2026 Figure North America Market Estimates and Forecasts, 2021-2026 (USD Million) Figure North America Market Estimates and Forecasts, 2021-2026 (in Volume)

Table North America CAGR by Revenue and Volume, 2021-2026

6.2.3 Europe Market Forecast, 2021-2026

Figure Europe Market Estimates and Forecasts, 2021-2026 (USD Million)



Figure Europe Market Estimates and Forecasts, 2021-2026 (in Volume) Table Europe CAGR by Revenue and Volume, 2021-2026 6.2.4 South America Market Forecast, 2021-2026 Figure South America Market Estimates and Forecasts, 2021-2026 (USD Million) Figure South America Market Estimates and Forecasts, 2021-2026 (in Volume) Table South America CAGR by Revenue and Volume, 2021-2026 6.2.5 Middle East & Africa Market Forecast, 2021-2026 Figure Middle East & Africa Market Estimates and Forecasts, 2021-2026 (USD Million) Figure Middle East & Africa Market Estimates and Forecasts, 2021-2026 (USD Million) Figure Middle East & Africa Market Estimates and Forecasts, 2021-2026 (in Volume) Table Middle East & Africa Market Estimates and Forecasts, 2021-2026 (in Volume)

7 MARKET COMPETITIVE

7.1 Global Market by Vendors
Table Global Superhard Materials Market by Vendors, 2016-2020 (in Volume)
Table Global Superhard Materials Market Share by Vendors, 2016-2020 (USD Million)
Table Global Superhard Materials Market Share by Vendors, 2016-2020 (in Volume)
7.2 Market Concentration
Figure Superhard Materials Market Concentration by Region
7.3 Price & Factors
Table Price Factors List
7.4 Marketing Channel
Figure Marketing Channels Overview

8 MAJOR VENDORS

8.1 Sandvik
Table Sandvik Profile List
Table Microecological Modulator Operating Data of Sandvik (Sales Revenue, Sales
Volume, Price, Cost, Gross Margin)
8.2 Element Six
Table Element Six Profile List
Table Microecological Modulator Operating Data of Element Six (Sales Revenue, Sales
Volume, Price, Cost, Gross Margin)
8.3 Sumitomo Electric
Table Sumitomo Electric Profile List
Table Microecological Modulator Operating Data of Sumitomo Electric (Sales Revenue, Sales
Volume, Price, Cost, Gross Margin)
8.4 ILJIN



Table ILJIN Profile List Table Microecological Modulator Operating Data of ILJIN (Sales Revenue, Sales Volume, Price, Cost, Gross Margin) 8.5 Zhongnan Diamond, Table Zhongnan Diamond, Profile List Table Microecological Modulator Operating Data of Zhongnan Diamond, (Sales Revenue, Sales Volume, Price, Cost, Gross Margin) 8.6 Henan Huanghe Whirlwind Table Henan Huanghe Whirlwind Profile List Table Microecological Modulator Operating Data of Henan Huanghe Whirlwind (Sales Revenue, Sales Volume, Price, Cost, Gross Margin) 8.7 SF Diamond Table SF Diamond Profile List Table Microecological Modulator Operating Data of SF Diamond (Sales Revenue, Sales Volume, Price, Cost, Gross Margin) 8.8 Zhengzhou Sino-Crystal Diamond Table Zhengzhou Sino-Crystal Diamond Profile List Table Microecological Modulator Operating Data of Zhengzhou Sino-Crystal Diamond (Sales Revenue, Sales Volume, Price, Cost, Gross Margin) 8.9 FUNIK **Table FUNIK Profile List** Table Microecological Modulator Operating Data of FUNIK (Sales Revenue, Sales Volume, Price, Cost, Gross Margin)

9 CONCLUSION



List Of Tables

LIST OF TABLES

Table Product Specifications of Superhard Materials Table Products Segment of Superhard Materials Table Global Superhard Materials Market by Type, 2016-2026 (USD Million) **Table Diamond Overview Table CBN Overview Table Others Overview** Table Application Segment of Superhard Materials Table Global Superhard Materials Market by Application, 2016-2026 (USD Million) Table Stone and Construction Overview Table Abrasives category Overview Table Composite polycrystalline tool Overview **Table Others Overview** Table Global Superhard Materials Market by Region, 2016-2026 (USD Million) Table Cost of Superhard Materials **Table Market Dynamics** Table Policy of Superhard Materials Table GDP of Major Countries Table Technology of Superhard Materials Table Market Entry of Superhard Materials Table Diamond CAGR by Revenue and Volume, 2016-2020 Table CBN CAGR by Revenue and Volume, 2016-2020 Table Others CAGR by Revenue and Volume, 2016-2020 Table Diamond CAGR by Revenue and Volume, 2016-2026 Table CBN CAGR by Revenue and Volume, 2016-2026 Table Others CAGR by Revenue and Volume, 2016-2026 Table Stone and Construction CAGR by Revenue and Volume, 2016-2020 Table Abrasives category CAGR by Revenue and Volume, 2016-2020 Table Composite polycrystalline tool CAGR by Revenue and Volume, 2016-2020 Table Others CAGR by Revenue and Volume, 2016-2020 Table Stone and Construction CAGR by Revenue and Volume, 2021-2026 Table Abrasives category CAGR by Revenue and Volume, 2021-2026 Table Composite polycrystalline tool CAGR by Revenue and Volume, 2021-2026 Table Others CAGR by Revenue and Volume, 2021-2026 Table Asia-Pacific CAGR by Revenue and Volume, 2016-2020 Table North America CAGR by Revenue and Volume, 2016-2020



Table Europe CAGR by Revenue and Volume, 2016-2020 Table South America CAGR by Revenue and Volume, 2016-2020 Table Middle East & Africa CAGR by Revenue and Volume, 2016-2020 Table Asia-Pacific CAGR by Revenue and Volume, 2021-2026 Table North America CAGR by Revenue and Volume, 2021-2026 Table Europe CAGR by Revenue and Volume, 2021-2026 Table South America CAGR by Revenue and Volume, 2021-2026 Table Middle East & Africa CAGR by Revenue and Volume, 2021-2026 Table Global Superhard Materials Market by Vendors, 2016-2020 (in Volume) Table Global Superhard Materials Market Share by Vendors, 2016-2020 (USD Million) Table Global Superhard Materials Market Share by Vendors, 2016-2020 (in Volume) **Table Price Factors List** Table Sandvik Profile List Table Microecological Modulator Operating Data of Sandvik (Sales Revenue, Sales Volume, Price, Cost, Gross Margin) **Table Element Six Profile List** Table Microecological Modulator Operating Data of Element Six (Sales Revenue, Sales Volume, Price, Cost, Gross Margin) Table Sumitomo Electric Profile List Table Microecological Modulator Operating Data of Sumitomo Electric (Sales Revenue, Sales Volume, Price, Cost, Gross Margin) Table ILJIN Profile List Table Microecological Modulator Operating Data of ILJIN (Sales Revenue, Sales Volume, Price, Cost, Gross Margin) Table Zhongnan Diamond, Profile List Table Microecological Modulator Operating Data of Zhongnan Diamond, (Sales Revenue, Sales Volume, Price, Cost, Gross Margin) Table Henan Huanghe Whirlwind Profile List Table Microecological Modulator Operating Data of Henan Huanghe Whirlwind (Sales Revenue, Sales Volume, Price, Cost, Gross Margin) Table SF Diamond Profile List Table Microecological Modulator Operating Data of SF Diamond (Sales Revenue, Sales Volume, Price, Cost, Gross Margin) Table Zhengzhou Sino-Crystal Diamond Profile List Table Microecological Modulator Operating Data of Zhengzhou Sino-Crystal Diamond (Sales Revenue, Sales Volume, Price, Cost, Gross Margin) Table FUNIK Profile List Table Microecological Modulator Operating Data of FUNIK (Sales Revenue, Sales Volume, Price, Cost, Gross Margin)





List Of Figures

LIST OF FIGURES

Figure Superhard Materials Picture Figure Industry Chain Structure of Superhard Materials Figure Manufacturing Process of Superhard Materials Figure SWOT of Superhard Materials Figure Diamond Market Size and Growth, 2016-2020 (USD Million) Figure Diamond Market Size and Growth, 2016-2020 (in Volume) Figure CBN Market Size and Growth, 2016-2020 (USD Million) Figure CBN Market Size and Growth, 2016-2020 (in Volume) Figure Others Market Size and Growth, 2016-2020 (USD Million) Figure Others Market Size and Growth, 2016-2020 (in Volume) Figure Diamond Market Estimates and Forecasts, 2021-2026 (USD Million) Figure Diamond Market Estimates and Forecasts, 2021-2026 (in Volume) Figure CBN Market Estimates and Forecasts, 2021-2026 (USD Million) Figure CBN Market Estimates and Forecasts, 2021-2026 (in Volume) Figure Others Market Estimates and Forecasts, 2021-2026 (USD Million) Figure Others Market Estimates and Forecasts, 2021-2026 (in Volume) Figure Stone and Construction Market Size and Growth, 2016-2020 (USD Million) Figure Market Size and Growth, 2016-2020 (in Volume) Figure Abrasives category Market Size and Growth, 2016-2020 (USD Million) Figure Market Size and Growth, 2016-2020 (in Volume) Figure Composite polycrystalline tool Market Size and Growth, 2016-2020 (USD Million) Figure Market Size and Growth, 2016-2020 (in Volume) Figure Others Market Size and Growth, 2016-2020 (USD Million) Figure Market Size and Growth, 2016-2020 (in Volume) Figure Stone and Construction Market Estimates and Forecasts, 2021-2026 (USD Million) Figure Stone and Construction Market Estimates and Forecasts, 2021-2026 (in Volume) Figure Abrasives category Market Estimates and Forecasts, 2021-2026 (USD Million) Figure Abrasives category Market Estimates and Forecasts, 2021-2026 (in Volume) Figure Composite polycrystalline tool Market Estimates and Forecasts, 2021-2026 (USD Million) Figure Composite polycrystalline tool Market Estimates and Forecasts, 2021-2026 (in Volume) Figure Others Market Estimates and Forecasts, 2021-2026 (USD Million)

Figure Others Market Estimates and Forecasts, 2021-2026 (in Volume)



Figure Asia-Pacific Market Size and Growth, 2016-2020 (USD Million) Figure Asia-Pacific Market Size and Growth, 2016-2020 (in Volume) Figure Asia-Pacific Market Size by Type Figure Asia-Pacific Market Share by Type Figure Asia-Pacific Market Size by Application Figure Asia-Pacific Market Share by Application Figure North America Market Size and Growth, 2016-2020 (USD Million) Figure North America Market Size and Growth, 2016-2020 (in Volume) Figure North America Market Size by Type Figure North America Market Share by Type Figure North America Market Size by Application Figure North America Market Share by Application Figure Europe Market Size and Growth, 2016-2020 (USD Million) Figure Europe Market Size and Growth, 2016-2020 (in Volume) Figure Europe Market Size by Type Figure Europe Market Share by Type Figure Europe Market Size by Application Figure Europe Market Share by Application Figure South America Market Size and Growth, 2016-2020 (USD Million) Figure South America Market Size and Growth, 2016-2020 (in Volume) Figure South America Market Size by Type Figure South America Market Share by Type Figure South America Market Size by Application Figure South America Market Share by Application Figure Middle East & Africa Market Size and Growth, 2016-2020 (USD Million) Figure Middle East & Africa Market Size and Growth, 2016-2020 (in Volume) Figure Middle East & Africa Market Size by Type Figure Middle East & Africa Market Share by Type Figure Middle East & Africa Market Size by Application Figure Middle East & Africa Market Share by Application Figure Asia-Pacific Market Estimates and Forecasts, 2021-2026 (USD Million) Figure Asia-Pacific Market Estimates and Forecasts, 2021-2026 (in Volume) Figure North America Market Estimates and Forecasts, 2021-2026 (USD Million) Figure North America Market Estimates and Forecasts, 2021-2026 (in Volume) Figure Europe Market Estimates and Forecasts, 2021-2026 (USD Million) Figure Europe Market Estimates and Forecasts, 2021-2026 (in Volume) Figure South America Market Estimates and Forecasts, 2021-2026 (USD Million) Figure South America Market Estimates and Forecasts, 2021-2026 (in Volume) Figure Middle East & Africa Market Estimates and Forecasts, 2021-2026 (USD Million)



Figure Middle East & Africa Market Estimates and Forecasts, 2021-2026 (in Volume) Figure Superhard Materials Market Concentration by Region Figure Marketing Channels Overview



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