

# 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



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