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Superhard Material Market: Global Industry Analysis and Forecast to 2015 to 2021

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Report Primer

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A superhard material is a material with a hardness level exceeding 40 gigapascals. Superhard materials are highly incompressible solids with high electron density and high bond covalency.

The various products of superhard material include cemented carbides, tool steels, ceramics and diamond. Cement carbide is generally used in industrial applications for machining tough materials such as carbon steel or stainless steel. The superhard material market is segmented in the following three categories: monocrystalline superhard, composite superhard materials and super-hard materials and tools. Monocrystalline superhard materials include diamond and cubic boron nitride.

Composite superhard materials include clad sheet for oil and gas, clad sheet for cutting tools, clad sheet and wire drawing die blanks used for coal and mining. Super-hard materials and tools include polycrystalline diamond drawing dies, diamond saw blades, diamond drill bits, diamond discs and diamond cutting tools.

Due to their incomparable hardness, superhard materials can scratch and shape any object, hence it used in a wide range of industrial operations related to turning, cutting, drilling, boring and grinding. Superhard materials are used in many industries including aerospace, alternative energy, automotive, chemical processing, infrastructure and construction, die & mold, electronic, general machining, mining, oil & gas, paper & pulp, power generation, railroads and shipbuilding. Application of superhard material in these industries includes abrasive, coating, cutting tool, general medical, precision part, refractory parts, sensors, semiconductor fabrication, subsystem components and wear parts polishing.

In 2013, affected by the insufficient demand from downstream petroleum, construction and metal cutting machine tool and due to the sluggish economy, superhard material and products industry's growth was slowed down and many companies were facing high operating costs due to this reason. In view of this, SF Diamond Co., Ltd, BOSUN Tools Co., Ltd, Henan Huanghe Whirlwind Co., Ltd, and some other companies adopted number of measures to expand their existing production capacity and extend their industrial chain to enhance their operational capabilities.

Asia-Pacific is the largest market for superhard material. China contributes the largest share of superhard material market in Asia-Pacific region generating about 90% of global output and become the top producer of manmade diamond. The superhard material market in China reached about USD 2 billion in 2013, accounting about 21.8% of global market share in superhard material. Market of superhard material in North America and Europe region is driven by improving economy, intensifying manufacturing activity and the ensuing rise in demand for machine tools that used for various industrial operations.

Major companies operating in global superhard material market are Zhongnan Diamond Co.,Ltd, Zhengzhou Sino Crystal Diamond Co., Ltd, Henan Huanghe, SF Diamond Bosun Tools, KingDream Public, Advanced Technology & Materials Co., Ltd, Zhengzhou New Asia Superhard Material Composite Co., Ltd., Henan Yalong Diamond Tools Co., Ltd, Shenzhen Haimingrun Industrial Co., Ltd., Zhengzhou Research Institute for Abrasives & Grinding, Monte Bianco Diamond Applications Co., Ltd., King Strong Material Engineering Ltd, CR Gems Diamond Co., Ltd, Anhui Hongjing New Material Co., Ltd, Funik U hard Material Co., Ltd, Henan Yalong Superhard Materials Co.,Ltd, Zhengzhou Realy Superabrasives Co.,Ltd and BOSUN Tools Co., Ltd.

Key geographies evaluated in this report are:

- North America
 - U.S
 - Canada
- Europe
 - France, Germany, Italy, Spain, and the UK
 - Eastern Europe
 - CIS
- APAC
 - China
 - India
 - Japan
 - Australia
 - Others
- Latin America
 - Argentina
 - Brazil
 - Others

Key features of this report

- Drivers, restraints, and challenges shaping the Superhard Material market dynamics
- Latest innovations and key events in the industry
- Analysis of business strategies of the top players
- Superhard Material market estimates and forecasts(2015 -2021)

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