



# **Global and China Superhard Material and Product Industry Report, 2012-2015**

**May 2013**

## STUDY GOAL AND OBJECTIVES

This report provides the industry executives with strategically significant competitor information, analysis, insight and projection on the competitive pattern and key companies in the industry, crucial to the development and implementation of effective business, marketing and R&D programs.

## REPORT OBJECTIVES

- ◆ To establish a comprehensive, factual, annually updated and cost-effective information base on market size, competition patterns, market segments, goals and strategies of the leading players in the market, reviews and forecasts.
- ◆ To assist potential market entrants in evaluating prospective acquisition and joint venture candidates.
- ◆ To complement the organizations' internal competitor information gathering efforts with strategic analysis, data interpretation and insight.
- ◆ To suggest for concerned investors in line with the current development of this industry as well as the development tendency.
- ◆ To help company to succeed in a competitive market, and

## METHODOLOGY

Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications.

Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

## INFORMATION SOURCES

The primary information sources include Company Reports, and National Bureau of Statistics of China etc.

## Abstract

The superhard material industry chain mainly involves monocrystalline superhard materials, composite superhard materials, and superhard material tools. China is the world's largest producer of monocrystalline superhard materials for the moment, but it still lags behind advanced foreign companies in the downstream composite superhard materials. In recent years, Chinese companies such as SF Diamond and Henan Huanghe Whirlwind have increased their investment in research to by degrees intensify technology.

In the field of monocrystalline superhard materials, China produced 12.4 billion Ct of synthetic diamond in 2012, contributing about 90% to the global output. Meanwhile, China exported 16.5% of its synthetic diamond. Chinese synthetic diamond market is dominated by Zhongnan Diamond, Henan Huanghe Whirlwind and Zhengzhou Sino-Crystal Diamond. In 2012, the output of the three accounted for 74.9% of China's diamond output.

The composite superhard material field contains several segments, such as cutter-use composite sheets, oil-use composite sheets, mine-use composite sheets, and wire drawing die blanks.

In 2012, the market of Chinese composite superhard materials valued RMB19 billion, of which mine-use composite sheets and cutter-use composite sheets made up over 90% jointly. Chinese enterprises started early in mine-use composite sheets, so most of them are capable of producing medium and low-end mine-use composite sheets with strong competitiveness. However, DI, Element Six, Sumitomo, ILJIN and other international players are predominant in cutter-use and oil-use composite sheets. In the past two years, China's SF Diamond and Henan Huanghe Whirlwind realized mass-production of large-sized cutter-use composite sheets, and enjoy competitive edges in the high-end cutter-use composite sheet market.

In 2012, China's total output of superhard material tools (mainly diamond saw blades) reached 4.6 billion pcs. Superhard material tool manufacturers cross over the world, led by Saint Gobain, Tyrolit and other well-known producers. Among Chinese enterprises, Kingdream, Monte-Bianco and Bosun Tools have gained remarkable scale.

This report analyzes the market size and competition pattern of monocrystalline superhard materials, composite superhard materials, superhard material tools and other sectors; and makes in-depth analysis on operation, superhard materials and products of major global and Chinese companies.

Zhongnan Diamond is known as China's largest diamond manufacturer. In 2012, its synthetic diamond capacity reached 5.63 billion ct / year, and its output accounted for 44.6% of China's total. In recent years, adopting the self-made diamond powder as raw material, Zhongnan Diamond has been developing downstream PDC products vigorously, and achieved the capacity of 90,000 pieces / year by the end of 2012.

In 2013, Jiangnan Red Arrow intends to raise funds publicly to acquire Zhongnan Diamond, and add investment in five projects, including Nanyang Large-particle Industrial Diamond Production Line Project, PCBN and PCD series cutter material industrialization projects, in a bid to improve the diamond downstream industry chain.

As the largest polycrystalline diamond enterprise in China, SF Diamond will focus on the development of cutter-use composite sheets and oil drill-use composite plates. SF Diamond can conduct mass-production of 50.8mm and 58mm cutter-use composite sheets. Meanwhile, it is also the world's third-ranked polycrystalline diamond wire drawing die blank manufacturer, with the high-grade diamond wire drawing die blank capacity of 4,484,300 pcs/year.

The diamond tools produced by Bosun Tools mainly find application in construction, building material processing and decoration, especially show competitive advantages in the field of ceramic processing. Bosun Tools has subsidiaries in the United States, Canada, Brazil and Thailand. In 2011, the company invested RMB239 million in building a production base in Thailand, for producing diamond saw blades; the production base released capacity in July, 2012.

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