

# **Global and China Isostatic Graphite Industry Report, 2017-2021**

**Nov. 2017**

## **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

Isostatic graphite, a kind of high-end specialty graphite with multiple excellent properties, is widely used in semiconductor, electric discharge & mold machining, nuclear power, metallurgy and aviation, particularly in PV field.

Global PV industry has developed steadily in recent years with new installed capacity hitting 70GW in 2016, a year-on-year increase of nearly 30% and bringing the world's total amount up to 300GW. Driven by rapid growth of the PV industry, global isostatic graphite output approximated 113kt in 2016, 54.1% of which was used in PV field.

Japan, the United States and Europe are home to major isostatic graphite producers in the World. Enterprises with capacity of over 10kt include TOYO TANSO, IBIDEN and Tokai (Japan), SGL (Germany), and Mersen (France). Among them, SGL, Mersen and TOYO TANSO have production bases in China.

China is not only a big manufacturing country but also the world's largest PV market. It ranked first globally both in new PV installations (34.54GW) and cumulative capacity (77.42GW) in 2016. Hence, the country is also one of the most important isostatic graphite markets around the globe. 57.5kt of isostatic graphite was demanded here in 2016, 69.1% of which found its way into PV field.

However, domestic enterprises fail to meet the market demand for high-end products due to capacity crunch, weak technological capability and few product specifications, thus causing a great isostatic graphite supply-and-demand gap in the domestic market. About 41.5kt of isostatic graphite was produced in China in 2016, while another 16kt was largely imported.

There are more than 20 enterprises involved in isostatic graphite in China including Baofeng Five-star Graphite, Chengdu Carbon (Fangda Carbon New Material), Datong Xincheng New Material, Jilin Carbon and Sinosteel Advanced Material (Zhejiang). Among them, Baofeng Five-star Graphite, Chengdu Carbon, Jiangxi Shen Tian Carbon, Pingdingshan Oriental Carbon, Inner Mongolia Rising New Energy and Henan Kaitan New Materials have isostatic graphite projects under construction with total capacity of 106kt/a.

**Major Isostatic Graphite Project under Construction in China**

| <b>Enterprise</b>  | <b>Progress of Isostatic Graphite Project under Construction</b>   |
|--|--|
| <b>Jiangxi Shen Tian Carbon</b>                                      | A total of RMB32.4675 million was invested in 6kt/a specialty graphite (isostatic) production line project (planned investment of RMB146.3 million) by the end of 2016. The project is predicted to be in place on Jan 31, 2019.   |
| <b>Inner Mongolia Rising New Energy</b>                              | A total investment of RMB2.8 billion in 10k/a isotropic graphite project and 200t/a graphene project. Main frame of the workshop for isotropic graphite has been built and equipment is being installed.   |
| <b>Chengdu Carbon (Fangda Carbon New Material)</b>                   | An investment of RMB2.101 billion in 30kt/a specialty graphite project; it has not gone into production so far.  |
| <b>Pingdingshan Oriental Carbon</b>                                  | 2kt/a isostatic graphite project; various varieties and specifications of isostatic products are expected to be available on the market by the end of 2016; however, the company had not disclosed whether or not the isostatic graphite project had commenced production by the end of Sept 2017. |
| <b>Baofeng Five-star Graphite</b>                                    | The company and the People's Government of Huaping County signed an investment agreement on 28kt/a isotropic graphite production line project on Oct 20, 2017. The project, with total investment of RMB1 billion, will be constructed in three phases.  |
| <b>Henan Kaitan New Materials</b>                                    | The company invested RMB1.13 billion in 10kt/a high-strength/high-density isostatic graphite green body production project in 2017. The construction of the project will last from Jul 2017 to Aug 2018.   |
| <b>Henan Provincial Special Thermal Engineering Furnace Material</b> | The company has not disclosed whether or not the 20kt/a isostatic graphite expansion project (planned completion in 2016) with planned investment of RMB2 billion has gone into production.  |

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Promoted by steady growth of the PV industry, a rise in proportion of monocrystalline panel, and rapid development of EDM and nuclear power industries, China's demand for isostatic graphite will stay on the upswing, to an estimated 108.7kt in 2021. Meanwhile, output will also rise along with operation of new capacity, to a predicted 83.7kt in 2021.

Global and China Isostatic Graphite Industry Report, 2017-2021 highlights the followings:

- ◆ Global isostatic graphite industry (status quo, market size, competitive landscape, development in major countries, etc.);
- ◆ Isostatic graphite industry in China (development environment, status quo, market structure, competitive landscape, import & export, conclusion & forecast, etc.);
- ◆ Downstream sectors (PV, EDM, nuclear power, etc.);
- ◆ Eight foreign and eighteen domestic enterprises (profile, operation, R&D investment, isostatic graphite business, etc.)

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