

Global and China Polyurethane Industry
Chain Report, 2011-2012

Aug. 2012



# Research In China

## The Vertical Portal for China Business Intelligence

#### 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 costeffective 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 China Polyurethane Industry Association, National Bureau of Statistics of China and WIND Database etc.

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## **Abstract**

Polyurethane is the general name for polymers including multiple carbamate groups (-NHCOO-) on main chain of a polymer structure; and its products comprise rigid & flexible PU foams, elastomer, coating, adhesive and fiber, etc.

In 2011, global polyurethane product output approximated 17.65 million tons; rigid & flexible PU foams made larger contribution, around 60% of total output. With the rapidly increasing demand for polyurethane in the Asia Pacific Region, global polyurethane production center has been moved to Asia-Pacific region, especially China. China's polyurethane product output accounted for around 33.7% of the global total in 2011.

China's PU product demand saw a CAGR of 11.8% from 2006 to 2011. In particular, the demand reached 6.8 million tons in 2011, with the self sufficiency rate 87.5%. Among China's PU products, rigid & flexible PU foams, synthetic leather pulp and coating showed higher demand; and their accumulative demands occupied about 80% of total PU product demand in China in 2011.

## IDemand and YoY Growth Rate of PU Products in China, 2006-2012E



Source: ResearchInChina< Global and China Polyurethane Industry Chain Report, 2011-2012>

Upstream raw materials for polyurethane involve three categories including isocyanate (MDI,TDI, etc.), polylol (PPG, PTMEG, BDO, AA, etc.) and auxiliary (mainly DMF).

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#### 1 MDI

In 2011, global MDI capacity approximated 6 million tons, and merely around 10 enterprises were engaged in MDI production, with a very high concentration degree in the industry. In terms of production capacity, Bayer, BASF and Yantai Wanhua Polyurethanes Co., Ltd. ranked the top three, followed by Huntsman, DOW and NPU etc. In the same year, China became the largest MDI producer in the world, with capacity sharing 23.9% of the world's total.

#### 2 TDI

Worldwide TDI capacity reached 2.5 million tons or so in 2011. Bayer, BASF, MITSUI, Hebei Cangzhou Dahua Co., Ltd. and Perstorp are leading companies; and their aggregate capacities enjoyed roughly 70% of the global total TDI capacity in the same year. Worldwide TDI capacity is mainly distributed in China, South Korea and the United States.

#### 3 PPG

Global PPG industry also characterizes a high concentration degree; and leading players comprise Bayer, DOW, Shell, BASF and Huntsman, etc.

There are many PPG producers in China, but most with limited capacity, including Shanghai Gaoqiao Petrochemical Co., Ltd., Shandong Bluestar Dongda Chemical Industry Company and Nanjing Hongbaoli Co., Ltd. etc.

#### This report resolves around the followings:

- > Supply & demand, product mix and regional distribution of global PU industry;
- ➤ Industrial policies, supply & demand, product mix, import & export and development trend of Chinese PU industry:
- ➤ Demand analysis and consumption structure of market segements such as rigid & flexible PU foams, elastomer and coating etc in China and beyond;
- ➤ Production capacity, projects under construction and to be built, competition pattern, import & export and price trend of global and China's MDI, TDI and PPG industries;
- Analysis and prediction on PU demand in building energy-saving, refrigeration, water heater and automobile industries in China;
- Operation, PU business and development of 10 PU manufacturers and raw material producers around the globe.

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