# Global and China Solar Cell Paste Industry Report, 2014-2017

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## 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

Solar cell paste, an electronic paste for the production of crystalline silicon solar cell, consists of frontside Ag paste, backside Al paste, and backside Ag paste, and accounts for about 20% of solar cell costs, serving as key fundamental material in photovoltaic industry.

Being a kind of clean, stable and renewable energy, solar energy is one of the best approaches to solve energy shortage and environmental pollution. Against the background of global energy conservation and emission reduction, governments around the world have enacted a host of incentive policies to promote the development of PV industry, driving rapid growth in demand for solar cell. In 2014, global cumulative installed PV capacity approximated 184.6GW, registering a high CAGR of 45% over the past five years.

The consumption of solar cell paste in solar cell is relatively fixed, and growth in solar cell output directly spurs demand for solar cell paste. In 2014, global demand for solar cell paste reached around 18,000 tons, supplied mainly by U.S. DuPont, German Heraeus, and Taiwanese Giga Solar Materials, which took a combined market share of roughly 90%.

China is a nation with a large PV industry, with solar module output standing at about 30GW in 2014, making up more than 60% of the global total, creating theoretical solar cell paste demand of over 11,000 tons. However, as some companies directly imported solar cell or had Taiwanese firms manufacture solar cell, China's actual demand for solar cell paste is lower than theoretical amount.

China started late in solar cell paste industry, technologically lagging far behind large international companies. At present, among all solar cell paste products in China, localization rate of Al paste is as high as 90%, with Guangzhou Ruxing Technology Development Co., Ltd occupying over 50% of the domestic market; Ag paste relies heavily on imports, with more than 80% market shares controlled by DuPont, Heraeus, and Giga Solar Materials.

However, thanks to multiple supportive policies introduced by the State, a number of local manufacturers have emerged in solar cell paste industry in China. In 2014, solar cell paste capacity of Hunan LEED Thick Film Paste Co., Ltd. totaled about 3,600 tons; Jiangsu Hoyi Technology Co., Ltd shipped around 780 tons of Al paste and 12 tons or so of Ag paste for back surfaces, and Ag for front surfaces will be sold from 2015.

Global and China Solar Cell Paste Industry Report, 2014-2017 by ResearchInChina focuses on the following:

- Global and China's solar cell paste demand, competitive landscape, and development forecast;
- Global installed PV capacity, supply & demand, competitive landscape, and development forecast;
- China's installed PV capacity, supply & demand, import & export, and development forecast;
- Operation, solar cell paste business, and development forecast of 14 global and Chinese solar cell paste manufacturers.

**Solar Cell Paste Business of Major Global and Chinese Compaies, 2014**

| | |
|---|---|
| Heraeus 贺利氏 | Mainly provides frontside and backside silver pastes; acquired Ferro's electronic paste business in 2013 with market share rising to 43% |
| DUPONT | Provides ™ Solamet ® conductive paste for frontside contact, backside silver and backside contact; market share approximated 34% in 2014 |
| GSMC 硕禾电子 GIGA SOLAR | Provides backside aluminum, backside silver and frontside silver pastes; output totaled 3,593 tons in 2013; products are mainly sold in Taiwan and mainland China |
| Rutech 儒兴科技 | The largest solar cell aluminum paste production enterprise in mainland China; relying mainly on aluminum paste with an over 50% market share |
| 利德浆料 LEED-INK | Mainly provides backside aluminum and backside silver pastes, with annual capacity of 3,600 tons or so and nearly 10% market share in mainland China |
| HOYI 泓源光电 | Mainly provides backside aluminum and backside silver pastes with respective shipments of about 780 tons and 12 tons; frontside silver paste will be launched in 2015 |

Source: *Global and China Solar Cell Paste Industry Report, 2014-2017* by ResearchInChina

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