



Preparing for the Next Stage

The Shin-Etsu Group has been making capital expenditures that will strengthen our operations to become even more profitable. We construct production facilities to capture demand in growing markets, such as Asia, and also build facilities for internal production of raw materials for our key products. This will strengthen our ability to maintain stable supplies of products.

Capital Expenditures in Growing Markets

Electronics & Functional Materials Business

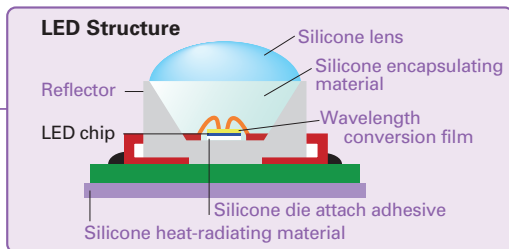
LED Materials Plant Completed in Vietnam

Construction of a plant in Vietnam for manufacturing LED packaging materials was completed in June 2013. With many LED manufacturers located in Asia and continued global growth expected in the LED market, the new plant enables us to supply these materials from Asia and

reinforces our position as the world's top supplier of LED packaging materials. Furthermore, the Vietnam plant reduces risk exposure by creating a second production base along with our plant in Japan.



LED optical module



Note: Purple text indicates products that are handled by the Shin-Etsu Group.

Specialty Chemicals Business

Construction of a Cellulose Derivatives Plant in the U.S.

SE Tylose, a subsidiary of Shin-Etsu Chemical in Germany, has been constructing a new plant in Louisiana, U.S. The new plant will manufacture hydroxyethyl cellulose (HEC), which is used for coatings for building materials. The production capacity of the new plant will be 9,000 tons annually, and the start-up is scheduled for 2014. This will raise the Group's annual production capacity of HEC to 27,000 tons together with the existing capacity of 18,000 tons in Germany. With these two operations, we aim to capture the anticipated global growth.



Capital Expenditures for Raw Material Production

Electronics & Functional Materials Business

Construction of Two Rare Earth Plants in Asia Completed

In 2013, we completed construction of two plants to maintain a stable supply of rare earth, the raw material for rare-earth magnets. The plant in China produces magnet alloys and the plant in Vietnam separates and refines rare earths. With applications in products such as next-generation vehicles (including hybrids) and energy-efficient air conditioners, demand for

rare-earth magnets is expanding. The Shin-Etsu Group is working to develop technologies that will lower the amount of heavy rare earths needed to manufacture these magnets. At the same time, we will strengthen our ability to maintain a stable supply by diversifying sources for raw materials.

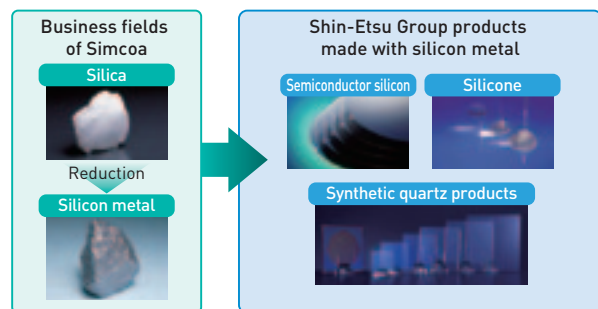
Rare-earth magnets production process



Specialty Chemicals Business

Increased Silicon Metal Output Capacity at Simcoa Operations

In Australia, Simcoa Operations completed a production capacity expansion in 2012 that raised the annual capacity of silicon metal from 32,000 tons to 48,000 tons. The Shin-Etsu Group uses silicon metal as the primary raw material for semiconductor silicon, silicones, synthetic quartz—a product with much potential for global growth. This expansion will enable Simcoa Operations to meet the rising demand for silicon metal.



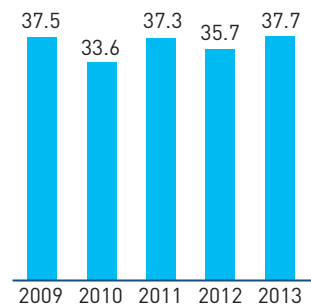
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Research & Development

The Shin-Etsu Group's R&D focuses on creating unique technologies that differentiate us from competitors. We are also speeding up the commercialization of new products that can become profit centers of the future.

We select new business development based on market size, growth potential, profitability and the relationship to our technologies and expertise. Once selected, we periodically check progress toward commercialization. In addition, we are working on new business models in domains that span several of our research facilities. These business models will increase collaboration among facilities as we perform new research with the Group's collective resources to commercialize products that benefit from our core strengths.

R&D Costs (Billions of yen)



Intellectual property, such as patents and technologies, is an important asset of the Shin-Etsu Group. As of March 31, 2013, the Group had 5,985 patents in Japan and 7,604 overseas patents, which include 198 patents in the U.S. in 2012. We are in the top class among Japanese chemical companies for patents in the U.S.

Number of Patents by Region

	Number of patents acquired during the year ended March 31, 2013	Cumulative number of patents acquired as of the end of FY 2013
Japan	824	5,985
North America	200	2,442
Asia/Oceania	396	2,528
Europe	352	2,614
Other Areas	1	20
Total	1,773	13,589

New Business Development in Five Priority Sectors

The Shin-Etsu Group has been focusing on five priority sectors for new businesses: "energy," "wide-gap materials," "health care," "optics and telecommunications," and "semiconductor-related materials." New R&D programs are under way in these sectors. In health care, we invested in NanoCarrier Co., Ltd. in 2012. This Japanese pharmaceutical venture company is developing an efficient method to deliver anti-cancer drugs to the targeted area of the body. We have started joint development for the high-quality polymers vital to NanoCarrier's technologies. To launch businesses in the five priority sectors, we will make extensive use of alliances with companies that have expertise in areas new to the Shin-Etsu Group.

