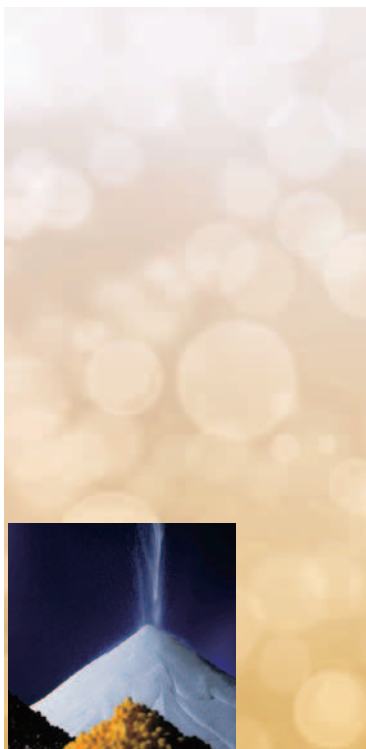


PVC/Chlor-Alkali



Main Products

- Polyvinyl chloride
- Caustic soda
- Methanol
- Chloromethane

Application Examples

- Infrastructure components
- Window frames
- PVC pipes
- Plastic greenhouse for agricultural use

Business Profile

The primary product in this business is polyvinyl chloride (PVC), a commodity plastic with outstanding physical properties, ease of processing, and cost advantages. PVC is used to make vital infrastructure components such as water and sewage pipes and electrical wire covering, as well as construction materials, household products, and medical devices. Demand for PVC is growing worldwide, driven by infrastructure projects in emerging countries. PVC window frames are attracting attention because of interest in excellent thermal insulation properties. These frames are ideal for building residences that are energy-efficient and comfortable.

The Shin-Etsu Group serves customers worldwide from its core PVC operations in the United States and manufacturing facilities in Europe and Japan. Shintech Inc. in the United States is the world's largest manufacturer of PVC. This company has recently completed second phase construction of a plant that makes vinyl chloride monomer. This plant further reinforces the Shin-Etsu Group's ability to maintain a reliable supply of PVC to meet growing global demand.

Results for Fiscal 2012

With regard to PVC, despite the prolonged slump in the U.S. housing market, Shintech Inc. maintained a high level of shipments by expanding its sales to worldwide customers and it greatly increased its business performance. In addition, Shin-Etsu PVC in The Netherlands also continued firm shipments. On the other hand, in Japan, a tough business situation continued due to such factors as the effects of the operation stoppage at our Kashima Plant as a consequence of the Great East Japan Earthquake and sluggish demand.



PVC/Chlor-Alkali



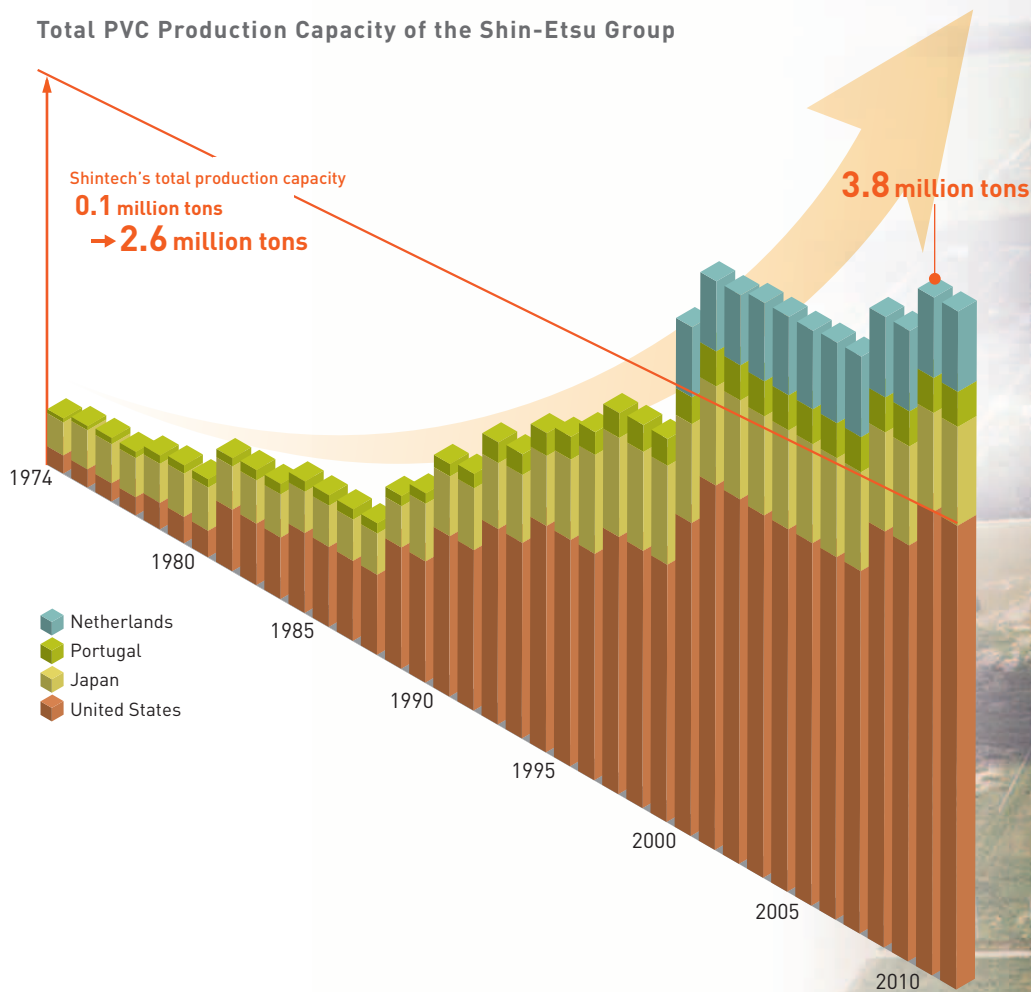
Global Market Share Leadership

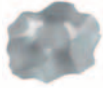
The World's Largest PVC Manufacturer

Shintech Inc. is a company based in the U.S. that produces PVC, and is the world's largest manufacturer of this material. By constantly making capital expenditures that accurately target increases in demand, Shintech Inc. has increased its PVC production capacity more than 26 times since operations began in 1974 with annual output of 100,000 tons. This high production volume provides cost advantages that strengthen the company's competitive edge.

Shintech Inc.'s location also offers advantages. Due to its relative political stability, the United States has a low country risk in terms of business. Furthermore, U.S. energy resources are abundant, partly because of the ongoing development of shale gas. These attributes will make the U.S. chemical industry even more competitive. Shintech Inc. is currently using these advantages and its worldwide sales network to further heighten its stature in the global PVC industry.

Total PVC Production Capacity of the Shin-Etsu Group



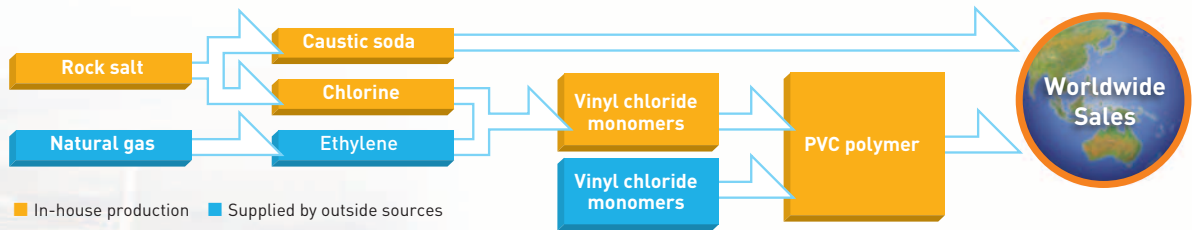


In-house Raw Material Production to Diversify Procurement

Shintech Completes Work for Integrated Production

In 2011, Shintech Inc. completed second phase construction of a vinyl chloride monomer plant that manufactures raw material for PVC. Since the first phase of construction was completed in 2008, this plant has made every stage of PVC production possible starting with rock salt, the initial raw material, and ending with PVC polymer. With this increase in internal production, the company is now in an even better position to maintain a consistent supply of PVC to meet growing global demand.

Shintech's Integrated Production Facilities



A message from Shintech



Mr. David Wise
Vice President,
Shintech Louisiana
LLC

Shintech's Louisiana operations consist of two world-scale, integrated chlor-alkali, VCM and PVC production facilities. Shintech Plaquemine Plant-1 includes utilities, a chlor-alkali unit, vinyl chloride monomer unit and polyvinyl chloride (PVC) unit, while Shintech Plaquemine Plant-2 produces chlorine, ethylene dichloride (EDC) and vinyl chloride monomer (VCM) for supply to Shintech's nearby Addis PVC facility. The facilities have certainly helped solidify Shin-Etsu's position as the world's largest producer of PVC.

The completion and operation of the Plaquemine manufacturing units have allowed the company better control and integration of raw materials for the manufacture of PVC. This successful integration has resulted in a more stable supply of PVC to customers around the world. The company has improved its cost position by consolidating large-scale operations in one location and securing reliable, competitively priced supply of critical raw materials by pipeline. The Louisiana facilities have also provided Shintech another U.S. Gulf Coast manufacturing location that geographically diversifies its manufacturing operations to ensure capability to respond to customer needs.

Shintech's focus on quality control, employee training and equipment and technology is another reason it is able to produce such a stable supply of high-quality products. This is especially true at our Louisiana operations.

Silicones



Main Products

- Silicones

Application Examples

- Cosmetics and Toiletries
- Automobiles
- Construction
- LEDs
- PCs
- Mobile phones

Business Profile

Silicones combine organic and inorganic properties and can be produced in various physical forms, such as an oil, resin, rubber or fluid. Properties of this versatile material include electrical insulation and resistance to heat and cold. The Shin-Etsu Group supplies more than 5,000 types of silicone products for electronic products such as computers and mobile phones, cosmetics, household products, automobiles, houses, and many other applications.

Outside Japan, the Shin-Etsu Group manufactures silicones in the United States, the Netherlands, Taiwan, South Korea, and Thailand. In addition, a silicone rubber plant will start its operation in China in 2012 to meet the rapid growth in local demand. With a production and sales capability in China, we are better positioned to meet demand for silicones in Asia. Furthermore, we plan to increase sales of silicones globally by aggressively conducting business activities that are closely linked to the needs of individual markets worldwide.

Results for Fiscal 2012

Sales in Japan during the first half of the fiscal year continued to be firm, mainly in product applications areas such as the electronics and cosmetic fields. In the second half of the fiscal year, on the whole, business was slow, although some recovery was seen in such applications as those for automobiles. Our overseas business was strongly affected by sluggish market prices in the Asian region, such as in China.





Activities in Growing Markets

New Silicone Plant in China

A new silicone plant in China will start its operation in 2012. Its annual output capacity will be 25,000 tons of silicone rubber for molding and other silicone products. Demand for silicones is constantly increasing in various fields along with Chinese economic growth. Producing silicone locally allows this business to precisely match market conditions in China. We plan to expand the plant's silicone product lineup, responding to customer needs in the future.

Key Materials for Advanced Technologies

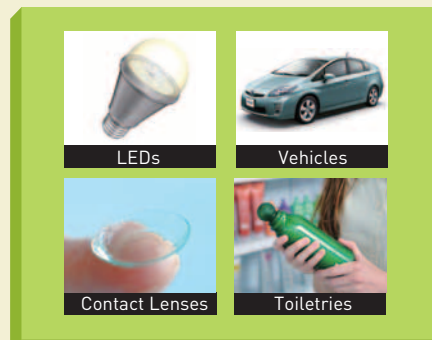
Silicones have various characteristics due to their molecular structure, and are a highly functional resin with immense potential. For example, new functions can be added through mixing technologies. Also, the properties of silicones can be combined with those of other materials. This flexibility makes silicones

a key material for advanced technologies involving LEDs, solar cells, automobiles, cosmetics, and chemicals. With silicones in use in so many industries, this business continues to grow regardless of the performance of any particular market.

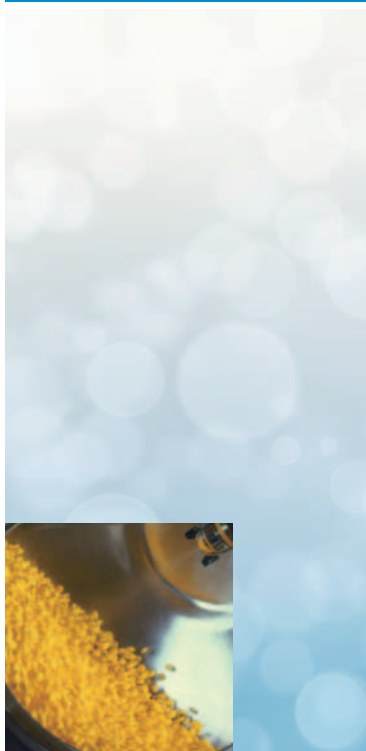
Products



Applications



Specialty Chemicals



Main Products

- Cellulose derivatives
- Silicon metal
- Poval
- Synthetic pheromones

Application Examples

- Medicinal products:
pharmaceutical coatings,
binders for tablets
and granules
(Cellulose derivatives)
- Toiletries
(Cellulose derivatives)
- Concrete admixture
(Cellulose derivatives)
- Mating disruption
(Synthetic pheromones)
- Various semiconductors
and solar cells
(Silicon metal)

Business Profile

Cellulose derivatives are environmentally friendly materials made from wood pulp. One of their typical uses is pharmaceutical application, such as the coatings and binders for tablets and granules, a field where safety is top priority. They are also used for automobiles, construction materials, civil engineering materials, and several other applications. Shin-Etsu Chemical is the largest manufacturer of cellulose derivatives for pharmaceutical use in the world.

Synthetic pheromones are used as an insect control agent. They are receiving attention as a revolutionary environmentally friendly product that can replace traditional chemical insecticides.

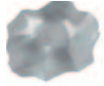
In Australia, we manufacture silicon metal, the primary raw material to make semiconductor silicon, silicones, and synthetic quartz.

Results for Fiscal 2012

With regard to cellulose derivatives, in addition to the business in Japan continuing to do well, mainly in pharmaceutical-use products and industrial-use products, the business of

SE Tylose in Germany continued to be firm due to the recovery of demand in building and construction application products. Furthermore, the silicon metal business of Simcoa Operations in Australia continued to do well, aided by rising market conditions.





In-house Raw Material Production to Diversify Procurement

Silicon Metal Output Capacity Increase at Simcoa Operations

In Australia, construction is underway at Simcoa Operations to boost annual output capacity of silicon metal from the current 32,000 tons to 48,000 tons. Silicon metal is the raw material for the main products of the Shin-Etsu Group: semiconductor silicon, silicones, synthetic quartz, and also solar cells, a product with much worldwide growth potential. Increasing output will enable Simcoa Operations to meet the rising demand for silicon metal in a variety of applications.



Simcoa Operations in Australia



Activities in Growing Markets

SE Tylose to Construct a Plant in the U.S.

SE Tylose will construct a plant that will manufacture hydroxyethyl cellulose (HEC), which is used mainly for water-soluble coating for paints. The plant will be constructed on a lot that is part of the vast land owned in Louisiana by Shintech Inc. It is scheduled to start operation at the beginning of 2014. The U.S. plant's annual output of 9,000 tons will enable SE Tylose to keep up with the steady growth in HEC demand.

Other Products of this Segment

Synthetic Pheromones

Shin-Etsu's synthetic pheromone products are used for mating disruption of agricultural pests, thereby holding down the population of these destructive insects. These products also warn insects to stay away from a particular area.

Synthetic pheromones have a much smaller effect on the environment than conventional agricultural chemicals. Due to this property, these pheromones are widely used in fruit orchards and vineyards in Europe and the United States where people are very concerned about the environment and agricultural chemical residue on food products. Use of synthetic pheromones is growing in Japan as well, primarily in fruit orchards. In addition, growers of vegetables are using these pheromones, and in recent years, sugar cane growers in Okinawa have started using these pheromones to combat insects.

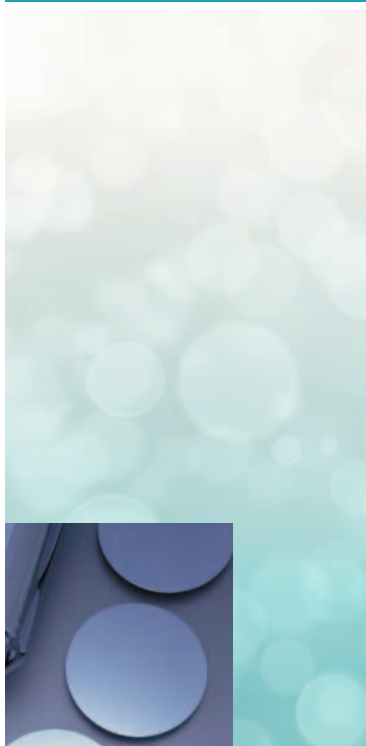


Poval

Poval is a water-soluble synthetic resin made from vinyl acetate. The Shin-Etsu Group manufactures vinyl acetate and Poval in Japan. The primary features of Poval are strong adhesion to fibers and glass along with outstanding transparency and durability. Poval is used as a raw material in nylon synthetic fibers, fiber processing agents, adhesives, the interlayer of laminated automobile glass, and a broad array of other products.



Semiconductor Silicon



Main Products

- Semiconductor silicon

Application Examples

- PCs
- Mobile phones
- Home appliances
- Automobiles

Business Profile

The Shin-Etsu Group is the world's largest supplier of silicon wafers, which are vital to the production of semiconductors used in PCs, mobile phones, digital home appliances, and many other products. These wafers are supplied to companies worldwide from production facilities in Japan, Malaysia, Taiwan, the United States, and the United Kingdom. The Japanese and U.S. production bases manufacture 300mm wafers, the core product in this category. With these plants, we can provide a reliable supply of larger-diameter wafers, wafers with super flatness, and other types that meet the demands of the leading edge devices.

Results for Fiscal 2012

In addition to the stoppage of operations due to the effects of the Great East Japan Earthquake at our major production base in Shirakawa, Japan, there was a continuing slowdown in demand for wafers after the summer due to the sluggish electronics market for such products as PCs and flat panel TVs, and the severe business situation continued.





Global Market Share Leadership

Fast Earthquake Recovery

Shin-Etsu Handotai's Shirakawa Plant in Fukushima Prefecture is the Shin-Etsu Group's primary source of 300mm silicon wafers. It was damaged by the Great East Japan Earthquake that hit Japan in March 2011. By drawing on the resources of the entire Group, we succeeded in returning this facility to normal operations by the end of June 2011. This accomplishment attracted much attention, including the selection of Shin-Etsu Chemical as "Company of the year 2011" by *Chemical & Engineering News*.

While operations were suspended at the Shirakawa Plant, we continued to ship wafers to our customers by using the output of other plants in Japan and in the United States in the Shin-Etsu Group. Our geographically diverse production network, designed to avoid various risks, allowed us to minimize the impact of the earthquake on supplies.

Silicon Wafer Production Bases



Electronics & Functional Materials



Main Products

- Rare-earth magnets
- Semiconductor encapsulating materials
- Coating materials for LEDs
- Photoresists
- Photomask blanks
- Synthetic quartz products
- Oxide single crystals
- Rare earths
- Liquid fluoroelastomers
- Pellicles

Application Examples

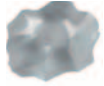
- Hybrid vehicles
(Rare-earth magnets)
- Energy-saving air conditioners
(Rare-earth magnets)
- Wind generators
(Rare-earth magnets)
- PCs (Rare-earth magnets, photoresists, photomask blanks, pellicles)
- Optical fiber
(Synthetic quartz products)

Business Profile

This business provides many types of products to a wide range of industries. Rare-earth magnets are used in motors for home appliances, automobiles, PC hard disk drives and other products. Synthetic quartz products include preforms for optical fiber and large-sized photomask substrates for manufacturing LCD panels. Our encapsulating materials have a multitude of properties required by high-brightness LEDs. Higher demand is foreseen for LEDs to reduce energy consumption. In addition, we supply photoresists for printing integrated circuits, pellicles, and other products that are essential to the semiconductor lithography process. In recent years, we started supplying photomask blanks. Furthermore, we developed a liquid fluoroelastomer called SHIN-ETSU SIFEL®.

Results for Fiscal 2012

With regard to rare-earth magnets, we addressed the sharp rise of raw materials prices, and at the same time, we endeavored to expand sales mainly for applications in hybrid automobiles. As a result, the business continued to do well. Photoresist products remained strong, aided by the progress in semiconductor device miniaturization. The business of materials for high-luminance LED packaging also continued to do well. With regard to the optical fiber preform business, although this business was affected by the stoppage of operations at the Kashima Plant due to the Great East Japan Earthquake, after the restoration, firm shipments continued.



In-house Raw Material Production to Diversify Procurement

Diversifying Sources of Rare Earths

Construction is underway in China and Vietnam on plants that will help maintain a stable supply of rare earth for manufacturing rare-earth magnets. The plant in China will produce magnet alloys, an intermediate material, and the plant in Vietnam will carry out the separation and refinement of rare earths. Both plants are scheduled to begin operations in 2013. We will further strengthen our ability to maintain a reliable supply of rare-earth magnets by diversifying sources of raw materials while lowering the volume of rare earths used.



Magnet alloy



Activities in Growing Markets

New Preform Plant in China

A new plant in China that makes optical fiber preform will start full-scale operations later in 2012. Demand for optical fiber is increasing in China with the large volume of infrastructure projects, and this growth is expected to continue. Operating the plant in a promising market area will reinforce the growth of the optical fiber preform business.



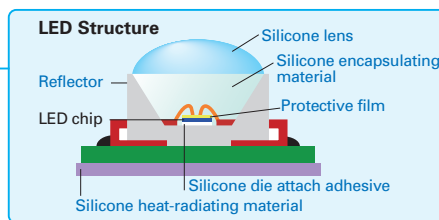
Optical fiber preform

New LED Materials Plant in Vietnam

Construction is proceeding in Vietnam on a plant that will manufacture LED encapsulating materials. Scheduled to start operating in 2013, this facility will supply these materials to meet the expected growth of demand in Asian countries. This plant will reinforce our position as the world's top supplier of LED encapsulating materials. Furthermore, building a plant in Asia will reduce risk exposure by creating a second production base along with the plant in Gunma Prefecture, Japan.



LED optical module



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

Diversified Business



Main Products and Services

- Processed plastics
- Export of plant equipment and technology licensing
- International trading
- Engineering
- Information processing

Application Examples

- Mobile phones (Input/output parts for electronic devices)
- Chemical plants

Business Profile

Shin-Etsu Polymer Co., Ltd., manufactures semiconductor wafer-related containers, input/output parts for electronic devices, construction materials, and other processed plastic products. Shin-Etsu Engineering Co., Ltd., plays a key role in expanding and automating capital investment projects of the Shin-Etsu Group and also receives a large volume of orders from outside the Group.

Results for Fiscal 2012

Shin-Etsu Polymer Co., Ltd.'s business of keypads for mobile phones remained in a severe situation due to a large decrease in demand resulting from the rapid spread of touch-panel type smartphones. In addition, the business of semiconductor wafer-related containers continued to be slow due to sluggish semiconductor device demand. The engineering business was firm.

