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Steady Markets

Polyvinyl Chloride (PVC)

As the world's largest producer of PVC, Shin-Etsu has production bases in Japan, the United States, and Europe. U.S. subsidiary Shintech Inc. has plans to build a second PVC plant.

Silicones

In silicones, Shin-Etsu ranks first in Japan and third in the world. An active research program generates a steady stream of new products to address customer needs. In all, we manufacture over 4,000 varieties of silicones for use in countless applications. This diversity shields silicone results from a downturn in any one client industry.

High-Potential Markets

Semiconductor Silicon

Shin-Etsu is the world's largest producer of semiconductor silicon. We are thus advantageously positioned to meet demands for greater sophistication at lower costs. In particular, we are focusing on leading-edge technology like epitaxial wafers and silicon-on-insulator (SOI) wafers.

Rare Earth Magnets

Among the world's rare earth magnet manufacturers, Shin-Etsu stands alone in its ability to perform all steps of the production process: separation and refining of rare earth, magnet formation, surface processing and final assembly. Already the preeminent supplier of voice coil motors for HDDs, we are cultivating new sources of demand outside the electronics industry as well.

Synthetic Quartz

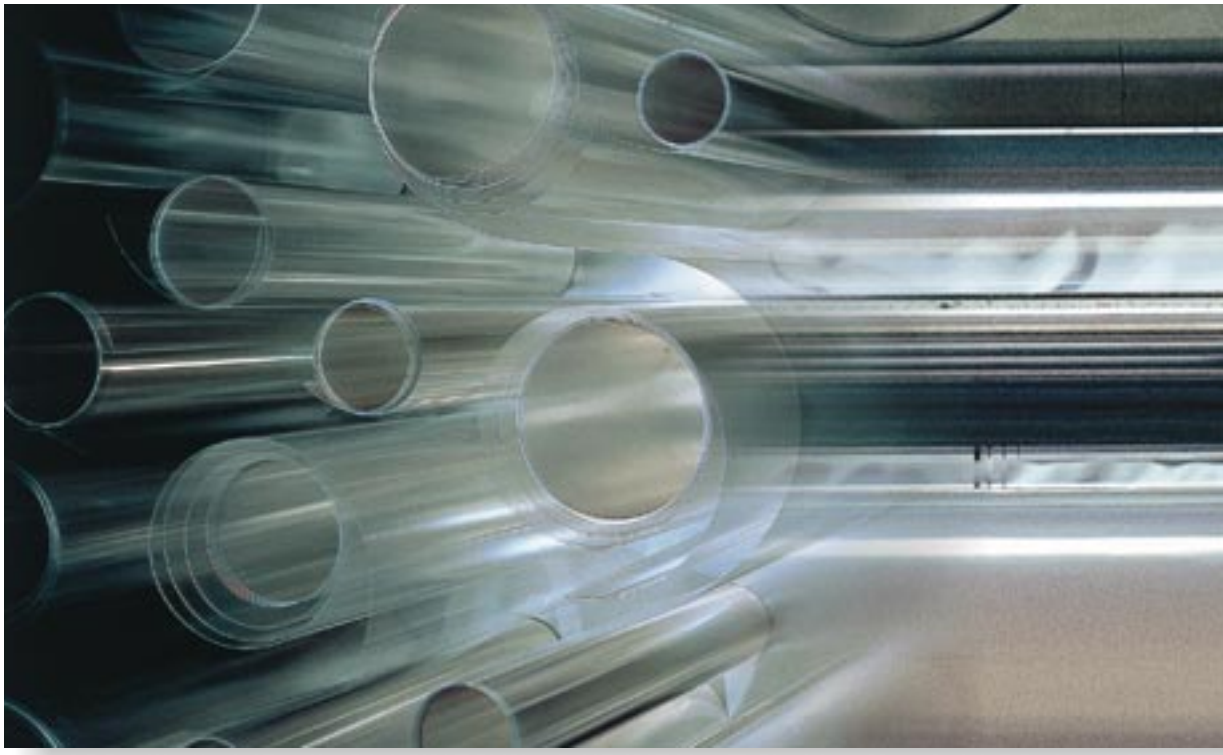
In synthetic quartz for photomask substrates, Shin-Etsu boasts the world's number one share. And as the world's sole producer specializing in preform for optical fiber, we are stepping up output on a global scale to support the rapid expansion of fiber-optic communications.

Growth at Shin-Etsu is driven by distinctive products centered in five core business sectors. Through the years, we have assembled businesses rooted in products with high global market shares. Operations draw on integrated production systems, a

Building on a Balanced Platform

diverse product line that is not overly dependent on a particular client industry, and a global production network to serve a broad array of customers. Balance is the key.

We operate in a number of steady markets with excellent long-term prospects. Furthermore, we have an expanding presence in high-potential markets. This diversity means that Shin-Etsu can maximize growth and profit opportunities without undue reliance on the future success of a single product group.



Reinforcing a Number-One Market Position

Still Higher Production Volumes

Shin-Etsu is the world's largest producer of PVC, operating plants in Japan, the United States and Europe.

In Freeport, Texas, Shintech Inc. is capable of producing 1.45 million tons of PVC annually, the highest output of any single PVC plant worldwide. With PVC demand climbing, Shintech plans to construct a second plant in Plaquemine, Louisiana, with an annual output of 590,000 tons. An adjacent Dow Chemical plant will provide a reliable, long-term supply of feedstock. An application to construct this facility has been submitted to the State of Louisiana. If approval is granted, Shintech's aggregate annual output will rise to 2.04 million tons and Shin-Etsu's worldwide capacity, which includes plants in Japan and Portugal, will total 2.74 million tons. In addition, Shin-Etsu is conducting negotiations with Shell/Akzo regarding the possible acquisition of its vinyl chloride monomer and PVC operations.

Consistently high quality and a reliable supply chain are two strengths that help set Shin-Etsu apart from other members of the global PVC industry.

Overcoming a Challenging Marketplace

Aggregate PVC demand in the United States, the largest consumer of this material in the world, increased 5.2 percent in 1998. Growth in Europe was 2 percent. In Japan, a slumping economy dampened demand. Conditions were further complicated by fierce opposition to products made with PVC by some environmental groups. Shin-Etsu has constantly worked to inform the public of the many benefits of PVC, especially the safety of its chemical composition. Accompanying these efforts has been a concerted drive to reaffirm our position as the world's foremost name in PVC. Locating production bases near sources of demand is making us more cost competitive. Refinements in production processes and polymerization technology are enhancing quality. And research and marketing programs are leading to entirely new markets for PVC.

Technology That Caters to Diverse Market Segments

Serving a Multitude of Needs With More Than 4,000 Silicones

Produced as an oil, rubber or resin, silicone is well suited for a remarkable number of products. Resistance to wear, heat and cold, along with outstanding electrical and surfactant characteristics, add still more versatility. Cosmetics, automobiles, construction, communications and computers are just a few of the many important consumers of silicones.

Shin-Etsu accounts for about half of silicone sales within Japan. In addition to Japan, South Korea, Taiwan, Singapore, the United States and the Netherlands are sites of production or sales bases. In silicone rubber contacts, subsidiary Shin-Etsu Polymer Co., Ltd. ranks first in the world. This firm has its own global infrastructure built around plants in Japan, Malaysia, China, the Netherlands and Mexico.

In 1998, weak economies limited growth in silicone demand in Japan and the rest of

Asia. Some sectors performed well, though. One example is carbon functional silane, where additional production capacity came on stream in Japan late in 1998. Silicone orders were solid in North America and Europe. In response, elastomer capacity was increased at subsidiaries in the United States and the Netherlands.

Environmentally Benign Silicone Polymers

All home appliances and electronics, including PCs, incorporate organic resins like polycarbonate and polystyrene that have been treated with a flame retardant. Typical flame retardants are bromine, phosphorous and antimony compounds. All are potential sources of pollution. Shin-Etsu came up with a modified silicone polymer to replace these compounds. Market response has been favorable to this polymer, which offers the added benefit of providing a surface lubricant.

Rubber contacts, widely used in keyboards, calculator pads and many other products, are a significant application for the silicones made by Shin-Etsu.

At the Forefront of Progress in Silicon

A Foundation to Support More Growth

Worldwide semiconductor output was generally weak in 1998. Production levels were low during the year's first half. This reflected higher inventories following strong output in the prior year, lower PC production and soft demand for many consumer products. There were signs of a recovery during the second half of 1998.

Falling orders and prices were the challenges this environment posed to wafer suppliers. Reacting quickly, Shin-Etsu will introduce high-quality wafers and other specialized products this year to stimulate demand. As a result, we will retain our top share of about one-fourth of the global semiconductor silicon market. Also supporting the year's results is our ability to serve customers from four plants in Japan as well as plants in the United States, the United Kingdom, Malaysia and Taiwan.

Consolidating the Silicon Crystal Operations of Hitachi

The semiconductor silicon crystal operations of Hitachi, Ltd. were transferred to Shin-Etsu in April 1999. This action gives Shin-Etsu another important customer in this field while also contributing to higher plant utilization rates and market share.

The production of 300mm-diameter silicon wafers demands the highest level of technology at every step through final testing. Shown here is the critical surface finish inspection.

Larger Wafers and Finer Design Rules

As circuit density rises and circuit line width falls, semiconductor device makers are seeking wafers of increasing quality. Shin-Etsu was among the first to supply epitaxial wafers, one way to deliver this quality. Now, we are tackling the challenge of developing technology for the mass production of lower-defect wafers while streamlining production processes. The goal is to provide a stable supply of wafers in a manner that reflects our "customers first" policy. Output of large-diameter wafers is rising in line with orders. We are continuing to refine our ability to ensure the necessary volume and quality of these wafers.

More Growth in SOI Wafers

Anticipating more demand for semiconductors used in digital devices, Shin-Etsu has been increasing its production of silicon-on-insulator (SOI) wafers. A long-term alliance with SOITEC of France gives us expertise in thin-film SOI technology, thereby allowing us to supply wafers with SOI films of various thickness. Furthermore, the ability to use SOITEC's patented Smart Cut process will yield significant economic and qualitative advantages in the production of thin-film SOI wafers.

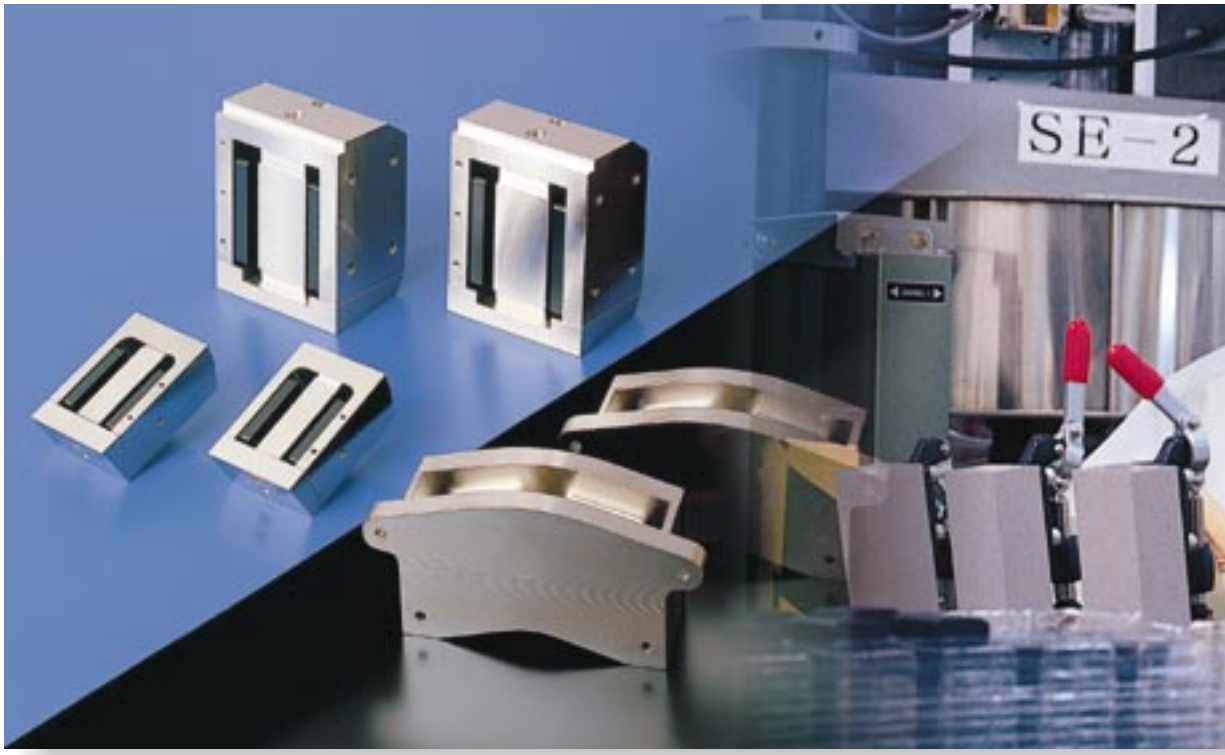
Integrated Production Yields a Distinctive Edge

Shin-Etsu—From Start to Finish

Rare earth magnet sales at Shin-Etsu have surged in recent years. Similar expansion is forecast. Several qualities distinguish us from competitors. We are the world's only fully integrated manufacturer of these magnets, starting from separation and purification of rare earth elements. And we are the only company that makes all three major categories of rare earth magnets: neodymium, samarium and cerium.

A Multi-National Network Serving the Electronics Industry

Shin-Etsu is the largest supplier in the world of magnets for voice-coil motors in hard disk drives, the primary market for rare earth magnets. Since most of these drives are made in Southeast Asia, we operate highly sophisticated plants in Malaysia and Indonesia. Sales offices in California and Singapore complement this capability. To accelerate growth, we



are also exploring ways to use the distinctive attributes of these powerful magnets to capture business outside the computer industry.

Rare Earth Magnets Attract Business in Promising New Applications

Having gained recognition as a high-performance electronic material, rare earth magnets are finding their way into more products. Until recently, these magnets were used almost exclusively in small motors. Now, orders are rising from makers of such products as energy-efficient home appliances, electric vehicles and sensors. Overall growth potential is immense. Rare earth magnets are becoming indispensable in high-tech equipment as diverse as MRI equipment for hospitals, and optical pickups for PCs and audio equipment.

Shin-Etsu is the world's largest supplier of rare earth magnets for voice-coil motors in hard disk drives. Other major markets are high-performance motors and sensors.

Targeting Opportunities With the Greatest Potential

A Unique Position in the Optical Fiber Preform Industry

Shin-Etsu is the only supplier specializing in optical fiber preform on a commercial basis that does not produce fiber-optic cables as well. A position at the top of the global market for photomask substrates further cements our prominence in the field of synthetic quartz.

Honing a Sharper Competitive Edge Around the World

During Shin-Etsu's last fiscal year, demand for fiber optics rose but prices moved in the opposite direction. Preform experienced the same market dynamics. We took advantage of our position as a cost-competitive supplier that specializes in preform to support customers' efforts to become more competitive in fiber optics. In concert with stepped-up sales activities, this allowed us to make inroads in new markets. Moreover, additional production facilities, which became fully operative early in 1998, enhanced Shin-Etsu's ability to maintain a stable supply of high-quality preform on a global scale.

Opportunities Abound in New Preform Market Sectors

Optical specifications are merely one of the many facets that highlight Shin-Etsu's skill in

Increasing use of excimer lasers in semiconductor lithography is raising demand for synthetic quartz substrates, which have the needed transparency and durability.

preform. Variations in shapes and dimensions allow us to cater to a wide range of needs. Sizes range from the world's largest preform to small-diameter versions. Strong technical support makes Shin-Etsu preforms still more attractive than those produced internally by the fiber optic cable manufacturers in smaller quantities. More growth in demand lies ahead. In Japan, for instance, optical fibers are just now starting to reach individual homes instead of being limited to trunk communications lines.

Number One in Photomask Substrates

Reinforcing its leadership position, Shin-Etsu completed a second synthetic quartz plant for photomask substrates and optical lenses for the semiconductor industry at its Naoetsu facility in the spring of 1998. In the United States, a new synthetic quartz plant in Texas operated by subsidiary Silica Products, Inc. has been conducting trial operations and quality checks. Able to perform each step from procuring raw materials through polishing, we can react quickly to shifts in customers' requirements. Nevertheless, Shin-Etsu's photomask results in the last year did not meet the original targets because of rapid changes in the global semiconductor industry. To foster growth, research is proceeding in the field of high-resolution photomasks for next-generation, ultra-fine-line semiconductor devices.