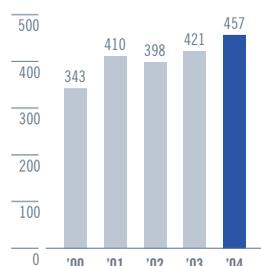


Organic and Inorganic Chemicals

Organic and Inorganic Chemicals

Net Sales
(Billions of yen)



Operating Income
(Billions of yen)



Polyvinyl Chloride (PVC)

Comprised of only 40% petroleum, PVC is an outstanding general-purpose resin, offering a wide range of advantages including ease of processing and low cost. PVC is one of the most advanced plastic materials in terms of recycling, where scrap plastic is physically turned back into reusable plastic. PVC also has excellent environmental qualities from a life cycle assessment perspective, which reflects the impact a material has on the environment from resource extraction to final disposal. Moreover, PVC window profiles are attracting attention as a building material for their exceptional heat-retention properties. These fully comply with energy conservation requirements, reduce heating and cooling bills, and prevent condensation from forming around windows for a more comfortable living environment.

In the United States, the use of PVC in pipes and siding is increasing,

with similar growth in applications for pipes and window profiles in Europe and Asia. Particularly in China, where extensive growth centered on building materials and consumer goods is boosting PVC demand, Shin-Etsu is responding to such a demand through mainly exports from Japan. We expect solid growth in demand in regions around the world.

Shintech Inc. in the U.S., which will mark its 30th year of operations in October 2004 and is the hub of the Shin-Etsu Group's PVC business, has established a strong foothold in the market as a world-leading PVC manufacturer. In Europe, Shin-Etsu PVC B.V. in the Netherlands increased its production capacity for PVC resins and monomers during the fiscal year under review. Using its tripolar production structure in Japan, the United States and Europe, the Shin-Etsu Group boasts an annual production capacity of 3.5 million tons. As the world's largest producer of PVC, Shin-Etsu will continue to capitalize on its strengths in production capacity, as well as on the extensive sales networks it is nurturing throughout the global market.

Silicones

Shin-Etsu's silicone business celebrated its 50th anniversary in 2003. Thanks to its reputation for customer-centered responses during that time, Shin-Etsu silicones are now found in more than 4,000 products in the electric machinery, electronics, transportation equipment, construction, cosmetics, toiletries and chemical industries. Shin-Etsu silicones continue to contribute to the high performance, advanced functions and innovative features of products.

Among a variety of applications, silicone serves as an efficient heat



Cellulose derivatives for pharmaceuticals are used as coatings for pills. The material can be adjusted to allow release of the medicine in the stomach or intestines, and to provide sustained release



Simcoa Operations Pty. Ltd. engages in the manufacture of silicon metals



Shown here are white powder-form PVC polymer and pellet-form compounds

Used at fruit orchards, synthetic pheromones control the populations of harmful insects by disrupting the insects' mating behavior



Thanks to its superior adhesiveness, durability and deep hardening qualities, the Company's silicone-based, highly efficient and elastic joint sealing material has produced real results in aquariums and other large-size water tanks around the world



transfer medium in electrical and electronic devices. Shin-Etsu has also produced a multipurpose silicone oil and is continuously developing new modifications and alternatives for plastic applications. In cosmetics, we are pursuing silicone products that enhance skin softness and are easy to apply, in response to market demands. We are also pursuing the development of non-solvent agents for applications in electric machinery, electronics and paper release products in line with heightened concerns over the environment. In the future, Shin-Etsu will promote the development of new products and applications across a wide variety of sectors and maximize the unique properties of this type of product.

Overseas, Shin-Etsu is working to quickly realize the full potential of an integrated production structure in Thailand, beginning with silicone monomer. Shin-Etsu Polymer Co., Ltd., which processes silicone, established a local subsidiary in Hungary, the Group's second manufacturing base in Europe, that began operations in March 2004, to complement its existing base in the Netherlands. The new base will produce key devices for mobile phones and other electric equipment.

Cellulose Derivatives

As environment-friendly materials made from cultivated plants, cellulose derivatives have a vast range of applications that includes applications in construction and civil engineering, agriculture, additives for fine ceramics and paper processing as well as in pharmaceuticals and toiletries, where safety is paramount.

Cellulose derivatives are used for coatings and binders for pharmaceutical tablets and granules. In industrial-use products, cellulose

derivatives are used for binders for shaping ceramic converters that purify automobile exhaust emissions.

At the end of 2003, Shin-Etsu acquired the cellulose operations of Clariant Group. Combined with existing operations, this acquisition has made Shin-Etsu the world's largest producer of methyl cellulose. Shin-Etsu aims to further expand the cellulose business by leveraging the special properties of cellulose derivatives.

Other Products

The Shin-Etsu Group manufactures an abundant lineup of products including synthetic pheromones and acetylene derivatives. In the field of agriculture, synthetic pheromones have been developed as agents to control the populations of harmful insects by disrupting the insects' mating behavior. Their use has increased in many parts of the world such as in the United States and Europe for crops like apples, peaches, pears, and vines. In Japan, our products are also coming into wide use in apples, peaches, pears, cole crops and in tea orchards. Shin-Etsu also produces and markets acetylene derivatives such as synthetic aroma chemicals that are used across a wide range of applications, for example, perfumes, cosmetics, and food flavorings.

Shin-Etsu also manufactures silicon metal. Silicon metal is an essential raw material in such products as silicones, semiconductor silicon, and synthetic quartz, which are among the Group's core businesses. Through its wholly owned subsidiary in Western Australia, Simcoa Operations Pty. Ltd., the Company is securing stable and high-quality supplies of this valuable commodity.

Electronics Materials

Electronics Materials

Net Sales
(Billions of yen)



Operating Income
(Billions of yen)



Semiconductor Silicon

As a global leader in the field of silicon wafers, the building blocks of integrated circuits, the Shin-Etsu Group continuously strives to develop cutting-edge technologies for producing larger-diameter, super flat and low-defect silicon wafers. Silicon wafers have been one of Shin-Etsu's conspicuous growth areas in recent years. The Company has manufacturing bases in Japan, Malaysia, Taiwan, the United States, and the United Kingdom, which collectively account for more than 30% of total global sales, representing the top share in the world market.

In the second half of the fiscal year ended March 31, 2004, the semiconductor silicon business recorded a new high in shipment volume of mainstay 200mm wafers. This resulted from considerably stronger demand for devices in accordance with firm sales of PCs and digital home electronics.

Shin-Etsu Handotai Co., Ltd. (S.E.H.)'s Shirakawa Plant boasts an approximately half share of the market in the commercial production of cutting-edge 300mm wafers. Owing to steady expansion in the 300mm wafer market, production capacity at the Shirakawa Plant had reached 200,000 wafers per month as of March 31, 2004. Based on the continuing upturn in the semiconductor industry, we expect demand to increase in the future. Accordingly, Shin-Etsu has begun construction of facilities to expand production capacity to 300,000 wafers per month in 2004 in line with that anticipated increase.

Shin-Etsu is also endeavoring to increase sales of new products such as silicon on insulator (SOI) wafers and special wafers, whose applications are expanding to highly functional devices. The Company is working to strengthen competitiveness in 200mm and smaller products through measures to streamline and optimize production as well as improve quality.



Silicon wafers boast a degree of evenness to within 100 nanometers

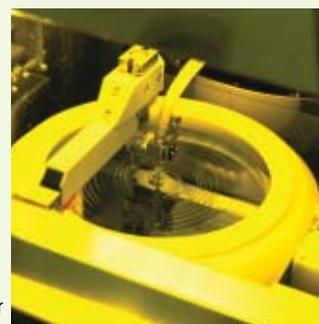


Epoxy molding compounds prevent semiconductor circuit leaks, protect regular and large-scale circuits from humidity, and are outstanding in terms of heat- and shock-resistance

Examples of wide-rimmed single crystal silicon ingots



Examples of voice coil motors for hard disk drives (HDDs)



Photoresist spin-coated onto a wafer

Rare Earth Magnets

Rare earth magnets are characterized by their high efficiency, exhibiting a force ten times that of ferrite magnets. These magnets are supporting efforts to create compact, lightweight, high-performance and energy-saving electric and magnetic components. The largest demand for rare earth magnets is for use in voice coil motors (VCM) for hard disk drives (HDDs) in which we maintain the leading global share. In addition, Shin-Etsu is the only company in the world carrying out integrated production of high-quality rare earth magnets from high-purity rare earth to the finished product. Leveraging this position, we will ensure a stable supply and the highest product quality, while swiftly developing new products and applications that match the needs and objectives of customers.

Epoxy Molding Compounds

Epoxy molding compounds are chip encapsulation materials used in the vast majority of semiconductor products from a single semiconductor to main memories and central processing units (CPUs). Deploying the cutting-edge technologies that it has accumulated through its development of various types of silicone, Shin-Etsu is delivering unique products that distinguish it from competitors. In an effort to adapt to needs for environmental conservation, Shin-Etsu has developed a green epoxy molding compound (EMC) product to fulfill recent application requirements.

Photoresists and Pellicles

Shin-Etsu has commercialized a photoresist compatible with excimer lasers, a light-sensitive material used in the imprinting of semiconductor circuits. The Company has also successfully developed pellicles and dust covers for photomasks, which are used for excimer laser lithography.

Shin-Etsu maintains a close bond with the semiconductor industry through its number one share of the wafer market, and supplies the main materials essential to the lithography process utilized by semiconductor device manufacturers. To maximize the benefits of this unique position, we are working in parallel with users in the development of the next-generation argon fluoride (ArF) photoresist.

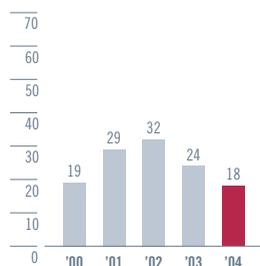
Functional Materials and Others

Functional Materials and Others

Net Sales
(Billions of yen)



Operating Income
(Billions of yen)



Synthetic Quartz Products

Synthetic quartz products are key contributors to the spread of optical fiber networks, which support the growth of network computing, and the development of LSIs and liquid-crystal display panel technologies. Our synthetic quartz products — including preforms for optical fibers, photomask substrates for LSIs, large mask substrates for liquid crystals, and others — provide indispensable material for the information technology (IT) industry. Based on our accumulated know-how in silicon chemistry, Shin-Etsu was the first in the world to successfully mass-produce synthetic quartz with a purity greater than that of natural

quartz. We have positioned the synthetic quartz business as one of important businesses in our strategy.

Despite a decline in global demand for preforms for optical fibers, Shin-Etsu is pursuing research into and development of high-quality products for the future.

Moreover, Shin-Etsu aims to respond in step with expected growth in demand for large mask substrates, which are used to manufacture liquid crystal panels, and maintain its leading share of the market.

Rare Earth Magnets for General Applications, and Rare Earths

Rare earth magnets for general applications are contributing to the realization of products that are more compact and lightweight, and have higher outputs, such as motors. Using their outstanding capabilities, these rare earth magnets have various applications in everyday life such as in energy-saving air conditioners, motors for automobiles and optical pickups in CD players. In addition, rare earth magnets have begun to be used in energy-saving and eco-friendly applications, including motors for fuel cell cars, which are becoming more practical as a clean transportation means, as well as in motors for hybrid vehicles that are gaining in popularity.

By using our original high-level separation and refining technologies and physical property control technologies for rare earth products, we



Optical-fiber preforms with diameters of 160mm and lengths of 1,500mm will eventually become roughly 2,000km of optical fiber



Flexible copper-clad laminates essential for flexible printed circuit boards (FPCs)

Rare earths are the general designation for 17 elements, including the 15-element Lanthanides series plus Yttrium and Scandium



Shin-Etsu's rare earth magnets are used in wind turbine generators



SIFEL® is expected to contribute to improved products in numerous fields, including automobiles

have attained rare earths with 99.9999% purity. These rare earths are used for a wide variety of applications, including plasma displays, LCD TVs, the luminescent center of lasers, and oxygen sensors, catalytic converters and capacitors for automobile engines. Looking ahead, we anticipate that the number of applications for these rare earths will grow even further.

Liquid Fluoroelastomers SHIN-ETSU SIFEL®

Shin-Etsu was the first company in the world to successfully develop a liquid fluoroelastomer, SHIN-ETSU SIFEL®, that comes in a liquid or paste form prior to hardening and then becomes elastic after thermal curing. SHIN-ETSU SIFEL® has superior qualities in terms of its resistance to oil, solvents, chemicals and heat, as well as low-temperature and electrical qualities. SHIN-ETSU SIFEL® contributes to increased reliability in the shape of rubber molds and sealants in the automobile, aircraft, electric and electronic, office equipment and chemical industries. Based on its attractive characteristics, we believe SHIN-ETSU SIFEL® will be used in an increasing number of application areas.

Flexible Copper-Clad Laminates

Shin-Etsu has developed flexible copper-clad laminates with superior flexibility by affixing copper foil to polyimide film using its proprietary

technology, thereby contributing to market expansion.

As the principal new material for thin and lightweight flexible printed circuit boards, flexible copper-clad laminates contribute to more compact and lightweight mobile phones, digital cameras, flat-display panel TVs, DVD recorders and players as well as other digital home electronics.

Others

The Electro-Mechanics Division of Shin-Etsu Engineering Co., Ltd., a Shin-Etsu Group company, has enjoyed sharp growth in sales of panel alignment machines for the fast-growing LCD and PDP markets, which are supporting recent rapid growth in the digital home electronics field. As larger panel sizes are key to flat-panel TV market expansion, the Shin-Etsu Group will continue to provide panel alignment machines that meet industry needs.