Review of Operations

PVC/Chlor-Alkali

Business Profile
The primary product in this business is polyvinyl chloride (PVC), which is a commodity plastic resin with outstanding physical properties, ease of processing and advantages in terms of cost. PVC is used to make water and sewage pipes, electrical wires and many other vital infrastructure components. This material is also widely used in construction materials, household products, medical appliances and many other applications. In Japan, demand is growing for window frames made of PVC. Most growth in PVC demand is taking place outside Japan. In the United States, Shintech Inc. is expanding PVC production capacity and making substantial investments to strengthen its integrated manufacturing operations. With PVC manufacturing bases in the United States, Europe and Japan, the Shin-Etsu Group can supply this material to customers around the world.

Results for Fiscal 2011
Shintech Inc. expanded its operations by maintaining a high volume of shipments. The company increased sales to overseas customers as U.S. PVC demand remained weak due to the prolonged slump in the housing market. Shipments were encouraging as well as at Shin-Etsu PVC B.V. in the Netherlands. In Japan, the operating environment remained difficult as prices of raw materials rose and PVC demand was not strong. In addition, operations at the Kashima Plant were suspended following the Great East Japan Earthquake of March 11.

<table>
<thead>
<tr>
<th>Net Sales</th>
<th>Operating Income</th>
</tr>
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<tbody>
<tr>
<td>Billions of yen</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>238</td>
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<td>2011</td>
<td>284</td>
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</tbody>
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Billions of yen
Silicones

Business Profile
Silicones combine organic and inorganic properties and can be produced in various physical forms, such as fluid, resin or rubber. This versatile material has properties that include electrical insulation as well as resistance to heat, cold and weather. The Shin-Etsu Group currently supplies more than 5,000 types of silicone products to the electric equipment, electronics, automobile, construction, cosmetics, toiletries, chemical and many other industries. To meet a wide array of specialized customer needs, we are continuing to aggressively expand production and sales activities in China and other areas of the world where there is demand for silicones.

Results for Fiscal 2011
Sales of silicones were strong in Japan across a broad range of fields such as electronic devices, automobiles, cosmetics and many other sectors. Overseas as well, the silicones business performed well overall because of an ongoing recovery in demand that is taking place mainly in Asia.

Specialty Chemicals

Business Profile
Cellulose derivatives are an environmentally friendly material made from a natural polymer. One application is pharmaceutical coatings and binders for tablets and granules, a field where safety is paramount. These derivatives are also used for construction and civil engineering materials and in many other applications. Synthetic pheromones are getting attentions as environmentally friendly products; our own pheromone formulation product uses a newly developed concept and is an alternative to the traditional chemical insecticides that are sprayed. In Australia, we manufacture silicon metal, the primary raw material to make semiconductor silicon, silicones and synthetic quartz.

Results for Fiscal 2011
Sales of cellulose derivatives were weak despite strong sales in Japan to manufacturers of pharmaceuticals and automotive products because of low prices of products made by SE Tylose in Germany for construction materials.
Semiconductor Silicon

Business Profile
Silicon wafers are vital to the production of semiconductors used in PCs, mobile phones, digital home appliances and many other electronic devices. The Shin-Etsu Group manufactures these wafers in Japan, Malaysia, Taiwan, the United States and the United Kingdom. The five Japanese and U.S. production bases manufacture 300mm wafers, the core product in this category. These factories play a key role in enabling the Shin-Etsu Group, as the world’s top silicon wafer supplier, to meet a broad array of customer needs by offering the latest advances in technology along with a reliable supply of wafers.

Results for Fiscal 2011
Semiconductor silicon sales were strong in the fiscal year’s first half because of a rebound in demand for PCs, mobile phones and many other types of electronic products. In the second half, sales were impacted as manufacturers cut inventories of electronic products. In addition, production at the Shirakawa Plant of Shin-Etsu Handotai Co., Ltd., was suspended because of the Great East Japan Earthquake.
Business Profile
This business includes many types of products. One example is rare-earth magnets that are used in motors for home appliances, automobiles, PC hard disk drives and other products. Products also include synthetic quartz products such as preforms for optical fiber and large-sized photomask substrates for manufacturing LCD panels.

In addition, in recent years, we have started to sell photoresists for printing integrated circuits, photomask blanks, pellicles and other products that are essential to the semiconductor lithography process.

Furthermore, we were first in the world to develop a liquid fluoroelastomer named as SHIN-ETSU SIFEL®, which performs well even in cold temperatures and is resistant to oils and solvents. This product is used for molding material, adhesives or coatings.

Results for Fiscal 2011
Sales of rare-earth magnets increased for magnets used in hybrid cars and energy-efficient air-conditioners. Sales of photoresists were strong because of continuing technological progress involving semiconductor devices. There was also a big increase in sales of coating materials for LEDs. Sales of synthetic quartz products were steady for large photomask substrates for LCDs. However, the optical fiber preform business was affected by the suspension of operations at the Kashima Plant following the Great East Japan Earthquake.

Diversified Business
Business Profile
Shin-Etsu Polymer Co., Ltd., manufactures containers for semiconductor wafers, 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 receives a large volume of orders from outside the Group.

Results for Fiscal 2011
At Shin-Etsu Polymer, sales of keypads for mobile phones were lower due in part to price-based competition but sales of semiconductor wafer containers recovered. The engineering business performed well.