

# NEWS RELEASE

SHOWA DENKO K.K.

13-9, Shiba Daimon 1-chome  
Minato-ku Tokyo 105-8518

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## SDK to Promote Globalization and Improve Profitability --Gist of Explanations Offered at Conference--

Showa Denko K.K. (SDK) today held a conference in Tokyo to explain its business results in 2012 and business strategy for 2013. The gist of explanations offered at the conference is as follows:

### 1. Estimated business results in 2012 and current business environment

#### (1) Estimated business results in 2012 (already announced on November 1)

The Japanese economy is facing a difficult situation due to declining export and production, as it is influenced by slowdown of global economy (especially in Europe) and the continuing appreciation of the yen. SDK's Electronics segment, driven by the HD media business, is expected to record higher sales and operating income compared with 2011 results. However, other segments will record lower sales and operating income. As a result, SDK's consolidated net sales for 2012 will amount to ¥750 billion, a decline of approximately ¥100 billion. Consolidated operating income will be ¥32 billion, down about ¥15 billion.

#### (2) Current business environment and performance forecast for 2013 (image)

According to IMF's announcement in October, the influence of stagnant economies in industrialized countries (especially in Europe) and slowdown of emerging economies will continue. IMF predicts a slow recovery of the world economy in 2013. Growth rate of the Japanese economy in 2013 will be lower than that of 2012, reflecting the decline in reconstruction demand.

In view of such economic conditions and based on the assumptions described below, SDK expects to record consolidated net sales of ¥800 billion, operating income of ¥35 billion, and net income of ¥15 billion, a slight improvement over the estimated results in 2012. SDK will formally announce its performance forecast for 2013 in February 2013.

[Basic assumptions for 2013]

Exchange rate: ¥80 per US dollar

Japanese economy: Remain at the current level in the first half, and recover slowly in the second half of the year

Demand in China: Slow recovery

Electric power cost: Rising

### 2. Business strategy for 2013

Under its medium-term consolidated business plan PEGASUS, SDK is aiming to become "Unique Chemical Company with Strong Presence on the Global Market." SDK will continue to follow the basic strategy under PEGASUS in view of the steady performance of the HD media business and expected medium- to long-term growth of the graphite electrode industry. (The HD media and graphite electrode businesses are serving as the "wings" of PEGASUS.) At the same time, we will

review the planned business portfolio under PEGASUS to cope with changes in business environment and in laws and regulations at home and abroad. Thus, we will redesign our existing businesses.

In 2013, we will focus on accelerating globalization and improving the profitability of domestic operations. As for globalization, we will further expand existing businesses in China and establish new sites in the growing ASEAN region, strengthening our supply chains. In Japan, we will improve the profitability of our businesses in petrochemicals, chemicals, aluminum, and rare earth magnetic alloys by carrying out structural reform.

In accordance with that strategy, SDK will change its organization early next year to ensure speedy decision making, efficient operation, and quick commercialization of new products based on newly developed technologies. The existing systems of business sectors and headquarters will be abolished. Business divisions will be placed under the direct control of CEO. Corporate Officers in charge of respective business divisions will support CEO, constituting a strong top-management team. Thus, all businesses will be managed to ensure optimization of the performance of the entire Group.

### 3. Strategy by segment

#### (1) Electronics

##### ① HD media

Demand for PCs is currently stagnant, being influenced by the growth of smartphones and tablet PCs as well as the slowdown of emerging economies. This situation is expected to continue in 2013. The shipment volumes of hard disk drives in 2013 will total around 590 million units (at the same level as in 2012) due to stagnant PC demand. In 2014 and after, however, the shipment volumes will resume growth of 3-5% a year, due to the progress in cloud computing and recovery in the world economy.

SDK is taking the lead in the supply of high-storage-capacity HD media, and will continue to launch HD media with the highest capacity ahead of competitors. SDK has commercialized the world's first sixth-generation HD media based on perpendicular magnetic recording technology (2.5-inch 500 GB media; having the world's highest capacity for this size as of December 5, 2102). In the first half of 2013, SDK will launch the seventh-generation PMR media (2.5-inch 650 GB). Development of the next-generation HD media is under way.

##### ② Rare earths

Due to the drastic changes in raw material prices in China, we now need to substantially reform our rare earth magnetic alloys business. As for dysprosium (very rare in supply, and China is virtually the only source), SDK is developing new technology that enables reduction in the use of dysprosium. By meeting customer requirements through such development effort, SDK will rehabilitate its rare earth magnetic alloys business. Our existing sites in China will expand sales to customers in the growing rare earth magnet industry in that country.

##### ③ LED

As already announced, we transferred 70% of shares in our gallium-nitride (GaN) LED chip business subsidiary TS Opto Co., Ltd., to Toyoda Gosei Co., Ltd. on December 1, making the business a joint venture with Toyoda Gosei. We will further expand the business under the leadership of Toyoda Gosei, which is a

leading company in this field.

SDK will continue to promote its own business in LED chips to be used in plant growth facilities, as part of its high-brightness aluminum-gallium-indium-phosphide (AlGaInP) LED operations.

## (2) Inorganics

### ① Graphite electrodes

Electric steel production is showing no growth at the moment due to stagnation of the European economy and the slowdown of emerging economies. However, electric steel production will grow in the future due to increased supply of iron scrap following replacements of buildings and bridges in emerging countries and purchases of new cars.

SDK has so far produced high-end graphite electrodes at its Omachi Plant in Japan and at Showa Denko Carbon, Inc., of the United States, to serve mainly the markets in industrialized countries. However, SDK decided this year to invest in a graphite electrode manufacturing company in China and make it a subsidiary. SDK will expand product lineup for volume zone markets.

### ② Ceramics

Demand for chemical alumina is expected to grow in the ASEAN region for such applications as the cleaning of drinking water, filler for resins, and electronic materials. SDK is building a chemical alumina plant in Indonesia as a joint venture with a local company. The plant will start a trial run in 2014 and full-scale operations in 2015. With the start-up of the new plant in Indonesia, SDK will terminate its chemical alumina production at the Yokohama Plant.



**Chemical alumina plant under construction in Tayan, West Kalimantan, Indonesia**

## (3) Petrochemicals

The petrochemicals market remains stagnant due to slow recovery of demand in China and the slowdown of the global economy. The current situation will continue in the first half of 2013. Under the circumstances, our ethylene plant at the Oita Complex will continue operation at the rate of 90% in 2013.

To strengthen the competitive position of the Oita Complex, we have been strengthening cooperation between upstream and downstream operations. As part of that effort, SDK established NS Styrene Monomer Co., Ltd. as a joint venture with Nippon Steel & Sumikin Chemicals Co., Ltd. in 2011. Renewal of the JV's styrene monomer plant will be completed in the middle of 2013.

Furthermore, to increase the value of cracker products, we are developing a new butadiene manufacturing process based on acetaldehyde.

#### (4) Chemicals

In the area of basic chemicals of the Chemicals segment, demand for acrylonitrile remains low. To cope with that situation, SDK will expand its business in acrylonitrile derivatives. As for chloroprene synthetic rubber business, we will expand sales of high-value grades.

Also in the Chemicals segment, SDK will promote globalization in high-value-added businesses such as high-performance automotive materials (BMC), high-purity gases for semiconductor processing ( $\text{NH}_3$ ,  $\text{N}_2\text{O}$ ,  $\text{HBr}$ , etc.), and separation/refining. In addition to the separation business centering on *Shodex*<sup>TM</sup> HPLC columns, SDK has decided to enter the purification resins market through investment in BIA Separations, a venture company in Europe.



**CIM® Monoliths columns produced by BIA Separations**

#### (5) Aluminum

The Aluminum segment is now a cluster of businesses with leading positions on the global market, including operations in high-purity aluminum foils for capacitors, *Shotic*<sup>TM</sup> aluminum forged materials, and aluminum cylinders for laser beam printers. SDK will continue to strengthen these operations.

In the high-purity aluminum foils business, we are expanding our refining capacity at the Sakai Plant and building a new processing site in China, as announced earlier. In the *Shotic*<sup>TM</sup> business, we decided to build a new aluminum casting plant in Malaysia. Using the new plant and the existing forging plant in Singapore, we will meet growing demand for automotive forged aluminum parts in the ASEAN region,



**Showa Denko Aluminum (Nantong) Co., Ltd. for processing high-purity aluminum foils**

(6) New Growth businesses

We will expand our lithium ion battery (LIB) materials business. The business is based on our carbon and aluminum technologies, which are areas of our strength. Although there is some delay in the start-up of our target market for large LIBs for electric vehicles, the market is expected to grow rapidly in the medium-term point of view.

We will expand business in market segments where we have technical advantages, focusing on such areas as anode material, additive in cathodes and anodes, and aluminum laminated films for packaging.

For further information, contact:

IR & PR Office, Showa Denko (Phone: 81-3-5470-3235)