

**Contributing to society with “Green, Clean and Fine” products produced according to our corporate vision of “Creation of New Value”**

**Industrial Tape Business (Functional Base Products)**

In our adhesive tapes and high-function products for the automobile industry, in spite of the impact of problems between Japan and China, sales remained strong as a whole, in line with healthy sales in the North and South American markets and the South Asia market.

With regards to tapes for the electronics industry, sales of double-coated adhesive tapes and sealing materials remained strong in the first half of the fiscal year, not only because of the growing market for smartphones and tablet PCs, but also the increasing number of our products newly utilized in such devices. However, in the latter part of the fiscal year, we were affected by our customers’ adjusting their production beyond our assumptions.

Our adhesive tapes for electronic components and hard disc drives were weak, in line with a downturn experienced in the market for PCs and digital appliances.

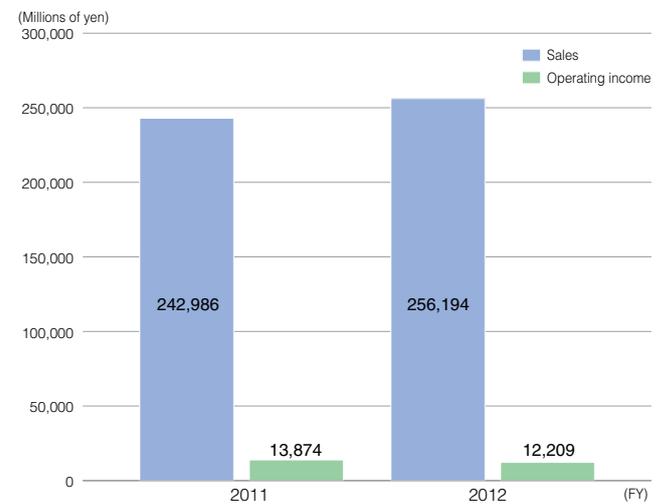
As for sales of double-coated adhesive tapes, surface protective materials and fluoroplastic products with high general versatility for general industrial application did not show strong recovery as a whole, in spite of an increase in sales of some kinds of products.

Turning now to tapes for hygienic use, we implemented an enhancement of our system with the acquisition of Bento, Turkey’s top tape manufacturer.

In fiscal 2013, we will further promote our globalization, focusing on developing countries and creating Area Niche Top products by managing a range of processes, from the development of products and the procurement of raw materials, to the production and sale of products on site.

	Fiscal 2011	Fiscal 2012	Year-on-year comparison
Sales	242,986	256,194	105.4%
Operating income	13,874	12,209	88.0%

Yen in millions



**Construction of New Plant for High-function Automotive Components in Brazil**

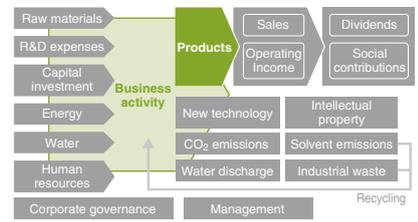
In rapidly developing Brazil, the automotive industry is steadily expanding, with major automotive parts manufacturers accelerating penetration of the market and local production. In order to expand market share there, Nitto Denko America Latina is constructing a new plant in Sao Paulo, Brazil. Construction began in February 2013 and completion is expected to be in December 2013. There will be 55 employees at start-up. The present office is to move into the new plant.

At the new plant, we will manufacture various kinds of high-function components and processed goods contributing to improvement of fuel efficiency and

reduction of noise and vibration of cars, with the aim of expanding our business in South America.



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## Entry into Personal Stationery Market

In October 2012, Nitoms released the Group's first stationery brand called "STÁLOGY®," coined from the words "stationery," "standard" and "technology." STÁLOGY® provides "What should have been, is": quality stationery which is good in design and function and is provided at affordable prices.

Unique and stylish stationery is produced from a collaboration between the technologies of Nitoms and "total direction" of Good Design Company. Nitoms technologies include core technologies of Nitto Denko, such as our adhesives technology. The stationery lineup includes double-coated tapes, ultra-transparent tapes, circular masking tape patches, sticky notes and erasers.



STÁLOGY® lineup

## Release of PENJEREX® Transparent Energy-saving Window Insulation Film



Applying PENJEREX® to windows conserves energy

In January 2013 we began selling a new energy-saving window film, featuring the industry's highest-level thermal insulation along with solar heat rejection, allowing users to achieve energy savings year-round.

In summer, the film rejects approximately 50% of solar heat, which improves cooling efficiency. On the other hand, it suppresses heat flow in winter by approximately 35%, reducing heating load and maintaining warmth. By simply applying the film to windows, an easy convenient and energy-saving improvement is realized, blocking ultraviolet light and acting as a glass scattering prevention function.

The film's transparency, high thermal insulation and adiabaticity have attracted public attention. We have had numerous business inquiries since its introduction and it has already been used in public offices, office complexes, plants and hospitals in Japan.

## Establishment of Innovation Center in Shanghai

In order to showcase the Nitto Denko Group's technologies and products to customers in the burgeoning Chinese market, we established Nitto Denko (Shanghai) Innovation Center at Nitto Denko (Shanghai Songjiang) in July 2013. With the aim of allowing our customers to experience our products and technologies first-hand and thus create new business opportunities with them, we welcome them with various machines and devices.



Innovation Center newly opened in Shanghai

## Optronics Business

Our information fine materials, such as LCD-related products, were strong, in line with firm demand for televisions and the continuous expansion of the market for smartphones and tablet PCs. Our transparent conductive film used on touch panels installed on smartphones and tablet PCs remained strong, not only because of expansion in the market, but also because of our differentiation strategy in quality and technological capabilities.

In our semiconductor materials, we assigned our semiconductor encapsulating materials business, excluding that part for optical semiconductors, to Hitachi Chemical Co., Ltd. on October 1, 2012, resulting in a drop in sales.

Demand for our printed circuit boards recovered from the impact of the Thailand floods at the beginning of the fiscal year. However, the recovery in the market for hard disc drives was slow, in line with the decline in demand for PCs. As a result, sales were weak.

In electronic processing materials, as declining investment in plant and equipment in the semiconductor industry continues, demand for carton sealers was weak. On the other hand, tapes for the production of semiconductors used in smartphones and tablet PCs were strong. Overall, sales were strong.

		Fiscal 2011	Fiscal 2012	Year-on-year comparison
Sales	Information fine materials	291,699	348,708	119.5%
	Semiconductor materials	11,720	8,335	71.1%
	Printed circuit boards	43,855	41,323	94.2%
	Processing materials	11,830	12,357	104.5%
	Total	359,105	410,725	114.4%
Operating income	Total	42,162	56,593	134.2%

Yen in millions



## New Development and Release of Thermosetting Thermal Resistant Encapsulation Sheet for LEDs

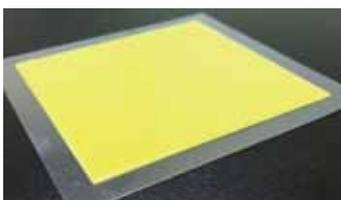
Recently, LED lights have been attracting attention as products contributing to energy conservation, becoming immensely popular.

As LED elements emit blue light, they are encapsulated by compounding liquid resin with fluorescent substances (yellow, red and green) to emit white light. In such a process, there exists the problem of color variation.

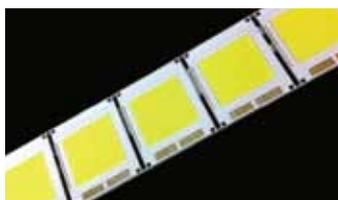
Nitto Denko has newly developed a thermosetting thermal resistant encapsulation sheet for LEDs containing fluorescent

substances. The sheet does not cause any damage to LED bonding wires when laminated onto LED devices, because of its gel-like, semi-hard properties, resulting in simplification of the whole encapsulation process. Furthermore, the sheet demonstrates uniformity of thickness. In addition, controlling the placement of fluorescent substances lessens color variation. Through these properties, we have realized high quality, high reliability and high productivity.

We began sales of the sheet in January 2013.



Newly developed thermosetting thermal resistant encapsulation sheet for LEDs



LEDs bonded with a thermally-hardened sheet of uniform thickness, which protects the LEDs



LEDs bonded with our sheet light up



## Medical and Membrane Businesses

In our medical business, medical and hygienic materials were strong. However, transdermal drug delivery patches were affected by price revisions in Japan and inventory build-ups on the part of our customers after the Great East Japan Earthquake. In addition, one of our group companies which manufactures oligonucleotide medicine was affected by a delay in an order, resulting in difficult circumstances.

On the other hand, a study of the world's first transdermal patch formulation for schizophrenia treatment is progressing. In addition, "PENLEST™," one of our transdermal drug delivery patches, which is an adhesive patch for regional anesthetics, was determined efficient in the relief of pain associated with extirpation of molluscum contagiosum. This led to the positive state of active business operations.

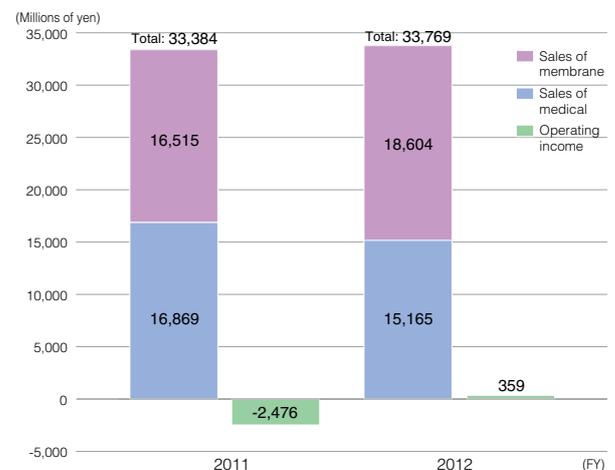
In fiscal 2013, we will continue to develop transdermal drug delivery patches, oligonucleotide medicine and molecular target DDS in our strategic areas throughout the world. In autumn, a transdermal drug delivery patch for high blood pressure is scheduled to go on sale.

Our membrane business was strong throughout the year, in line with the changing of our focus to general industry in

developing countries and the shipment of a previous order of our seawater desalination project.

		Fiscal 2011	Fiscal 2012	Year-on-year comparison
Sales	Medical	16,869	15,165	89.9%
	Membrane	16,515	18,604	112.6%
	Total	33,384	33,769	101.2%
Operating income	Total	-2,476	359	-

Yen in millions



## Acquisition of Entire Assets of Altea Therapeutics

Nitto Denko acquired all of the assets, including patents, trademarks and laboratory equipment related to Active Transdermal Therapeutic System technology, of Altea Therapeutics Corporation and launched full-scale research in April 2012 at the San Diego laboratory. The technology acquired this time is a new transdermal drug delivery technology. By making pores on the surface of the skin using heat in a safe and hygienic manner and applying the patch containing the drug, the drug is delivered into the body.

Nitto Denko has already developed and manufactured transdermal drug delivery patches which deliver drugs to the affected area through the skin. With this new technology, however, it will be possible to prepare transdermal drug delivery patches for polymer drugs such as peptide and gene medicine, and hydrophilic drugs, which were difficult to prepare previously. We aim to respond more widely to the needs of patients and medical experts.



Making pores on the surface of the skin and applying the patch just minutes later with an applicator



Nitto Denko Avecia, Cincinnati (former Girindus America)

## Acquisition of Assets of Girindus America, Inc.

Nitto Denko and Nitto Denko Avecia conduct research into, develop and manufacture oligonucleotide medicine, with the potential for growth in the future. In January 2013, we acquired the assets of Girindus America, Inc. (Ohio, U.S.A.), which is in the therapeutic oligonucleotide medicine manufacturing business. Through this acquisition, the manufacture of therapeutic oligonucleotide medicine and expansion of our organic synthesis business became possible.

In the future, we will develop our oligonucleotide medicine business globally.