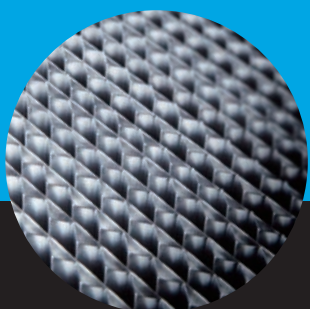


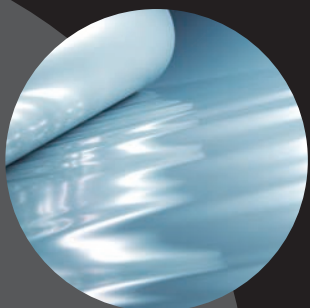


**TOYOBO**

*Ideas & Chemistry*



**Ideas + Chemistry**



**2013**

**Annual Report**

Year ended March 31, 2013

# Profile

The Toyobo Group aims to become “The category leader, continuing to create new value that contributes to society in the environment, life science, and high-function products fields.” With its core technologies of polymerization, modification, processing and biotechnology as its base, Toyobo is expanding its specialty businesses globally, focusing on five markets (Environment, Life Science, Automotive, Electronics & Information Display and Lifestyle & Safety) as it works to offer new value as a high-function products manufacturer.

The Group’s Corporate Philosophy is “Jun-ri-Soku-yu.” This phrase was the personal motto of Eiichi Shibusawa, who was the founder of Toyobo 130 years ago. It expresses the idea that “Adhering to Reason Leads to Prosperity.” As we continue to follow this Corporate Philosophy handed down from the time of its establishment, we will pass the baton to the next generations.

The Group has four main business segments:

- Films and Functional Polymers
- Industrial Materials
- Life Science
- Textiles

# Contents

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## Caution Regarding Business Forecasts and Forward-Looking Statements

Business forecasts and other forward-looking statements regarding Toyobo Co., Ltd. found in this annual report reflect the management’s assessment based on data available to it at the time that such were compiled. Readers are cautioned that actual business results may differ materially from these statements due to market trends, economic conditions, and other factors.

# Consolidated Financial Highlights

TOYOBO CO., LTD. AND CONSOLIDATED SUBSIDIARIES  
Years ended March 31

	Millions of yen						Thousands of U.S. dollars (Note 1)
	2013	2012	2011	2010	2009	2008	2013
Net sales	<b>¥339,009</b>	¥349,505	¥340,573	¥318,773	¥367,271	¥431,417	<b>\$3,604,561</b>
Films and functional polymers	<b>137,394</b>	138,437	126,960	114,928	122,312	134,631	<b>1,460,861</b>
Industrial materials	<b>71,891</b>	71,221	71,462	63,157	74,656	76,138	<b>764,391</b>
Life science	<b>24,839</b>	26,580	31,386	32,377	33,123	33,961	<b>264,104</b>
Textiles	<b>79,211</b>	87,999	86,832	88,373	111,736	142,471	<b>842,222</b>
Real estate (Note 2)	<b>3,741</b>	3,793	3,602	4,564	4,649	4,267	<b>39,777</b>
Other businesses (Note 2)	<b>21,932</b>	21,474	20,331	15,374	20,795	39,950	<b>233,195</b>
Operating income	<b>17,081</b>	18,305	20,890	11,469	11,229	27,075	<b>181,616</b>
Net income (loss)	<b>7,639</b>	4,587	4,155	2,094	(12,505)	4,698	<b>81,223</b>
EBITDA	<b>30,327</b>	37,778	40,003	31,888	32,435	46,349	<b>322,456</b>
Depreciation and amortization	<b>13,246</b>	19,473	19,113	20,419	21,206	19,274	<b>140,840</b>
Capital expenditure	<b>18,041</b>	16,517	13,931	15,166	20,039	32,486	<b>191,823</b>
R&D expenses	<b>9,966</b>	10,820	10,634	10,296	10,669	10,877	<b>105,965</b>
Total assets	<b>447,445</b>	437,841	443,516	438,439	443,816	494,496	<b>4,757,523</b>
Shareholders' equity (excluding minority interests)	<b>138,024</b>	130,572	125,770	107,095	98,253	129,671	<b>1,467,560</b>
Interest-bearing debt	<b>159,430</b>	154,888	151,804	170,963	178,901	178,842	<b>1,695,162</b>
Net cash flows provided by (used in) operating activities	<b>30,354</b>	14,192	33,714	29,024	(368)	23,282	<b>322,743</b>
Net cash flows used in investing activities	<b>(11,294)</b>	(15,061)	(11,579)	(13,455)	(15,803)	(10,193)	<b>(120,085)</b>
Net cash flows used in financing activities	<b>(2,636)</b>	(11,531)	(9,915)	(15,832)	17,379	(17,948)	<b>(28,028)</b>
				Yen			U.S. dollars (Note 1)
<b>Per stock data (yen):</b>							
Basic net income (loss) per share	<b>¥8.61</b>	¥5.17	¥5.49	¥2.88	(¥17.92)	¥6.73	<b>\$0.092</b>
Cash dividends	<b>3.50</b>	3.50	3.50	3.50	3.50	5.00	<b>0.037</b>
<b>Financial ratios:</b>							
ROA (%) (Note 3)	<b>3.8</b>	4.2	4.7	2.6	2.5	5.5	
ROE (%)	<b>5.7</b>	3.6	3.6	2.0	(11.0)	3.6	
Equity ratio (%)	<b>30.8</b>	29.8	28.4	24.4	22.1	26.2	
D/E ratio (times) (Note 4)	<b>1.16</b>	1.19	1.21	1.60	1.82	1.38	

Notes: 1. The U.S. dollar amounts in this report represent translations of yen for convenience only at the rate of ¥94.05 to \$1.00.

2. The real estate leasing business was previously included as part of the Other Businesses segment, but since the value of the assets in this business has exceeded 10% of the total value of assets in the segment, from the year ended March 31, 2009, the segment classification has been changed to include the Real Estate segment. Segment information for the year ended March 31, 2008 has been restated.

3. ROA: Operating income basis.

4. D/E ratio: Interest-bearing debt/net assets excluding minority interests.

Financial Statements, Notes and Independent Auditors' Report  
To view, download them online at [www.toyobo-global.com/ir/](http://www.toyobo-global.com/ir/)

# To Shareholders and Investors

## Review of Fiscal 2013

The business environment for the Toyobo Group through the end of fiscal 2013, ended March 31, 2013, was characterized by moderate recovery in the Japanese economy as reconstruction work progressed in the wake of the Great East Japan Earthquake and positive effects emerged thanks to policies to revitalize consumer spending. In the world economy, however, uncertain conditions continued along with the slowing of economic growth in China and the emerging countries

elsewhere in Asia, the prolonged debt issues faced by some European governments, and other issues.

Amid this operating environment, the Toyobo Group aims to become “the category leader, continuing to create new value that contributes to society in the environment, life science, and high-function products fields.” Accordingly, Toyobo is proceeding with activities targeted at further expanding its businesses by developing specialty products and increasing their sales in domestic and overseas markets.

However, recovery was in progress in the fourth quarter, even after factoring in the effects of lower shipments in the first quarter, but deterioration of Japanese-Chinese relations emerged from the beginning of the third quarter.

As a result, consolidated net sales for the subject fiscal year decreased ¥10.5 billion (3.0%) from the previous fiscal year, to ¥339.0 billion, with operating income down ¥1.2 billion (6.7%), to ¥17.1 billion, and net income rising to ¥7.6 billion.

# Review of Fiscal 2013



**Ryuzo Sakamoto**  
President & Chief Operating Officer

## Forecast for Fiscal 2014

During the fiscal year ending March 31, 2014, important developments in the operating environment are expected to include further economic growth in the emerging countries, including the ASEAN economies, and moderately strong recovery in the Japanese economy owing to the downward correction in the value of the yen, expansion in government public works investment, and other developments. However, the outlook is for continued uncertainty in the business environment because of rising prices of raw materials, concerns about financial instabilities in Europe, and other factors.

In view of this outlook for the operating environment, the Toyobo Group will continue to strengthen its earnings base to cope successfully with changes in the external environment. The Group works for further enhancing its profitability by focusing its management resources on businesses that are profitable and have high growth potential, as it aggressively expands its business activities in Japan and overseas, and improving its business portfolio, such as increasing the efficiency of its capital, strengthening its financial position, and other factors.

Considering such factors, for fiscal 2014, the Toyobo Group is forecasting consolidated net sales of ¥350.0

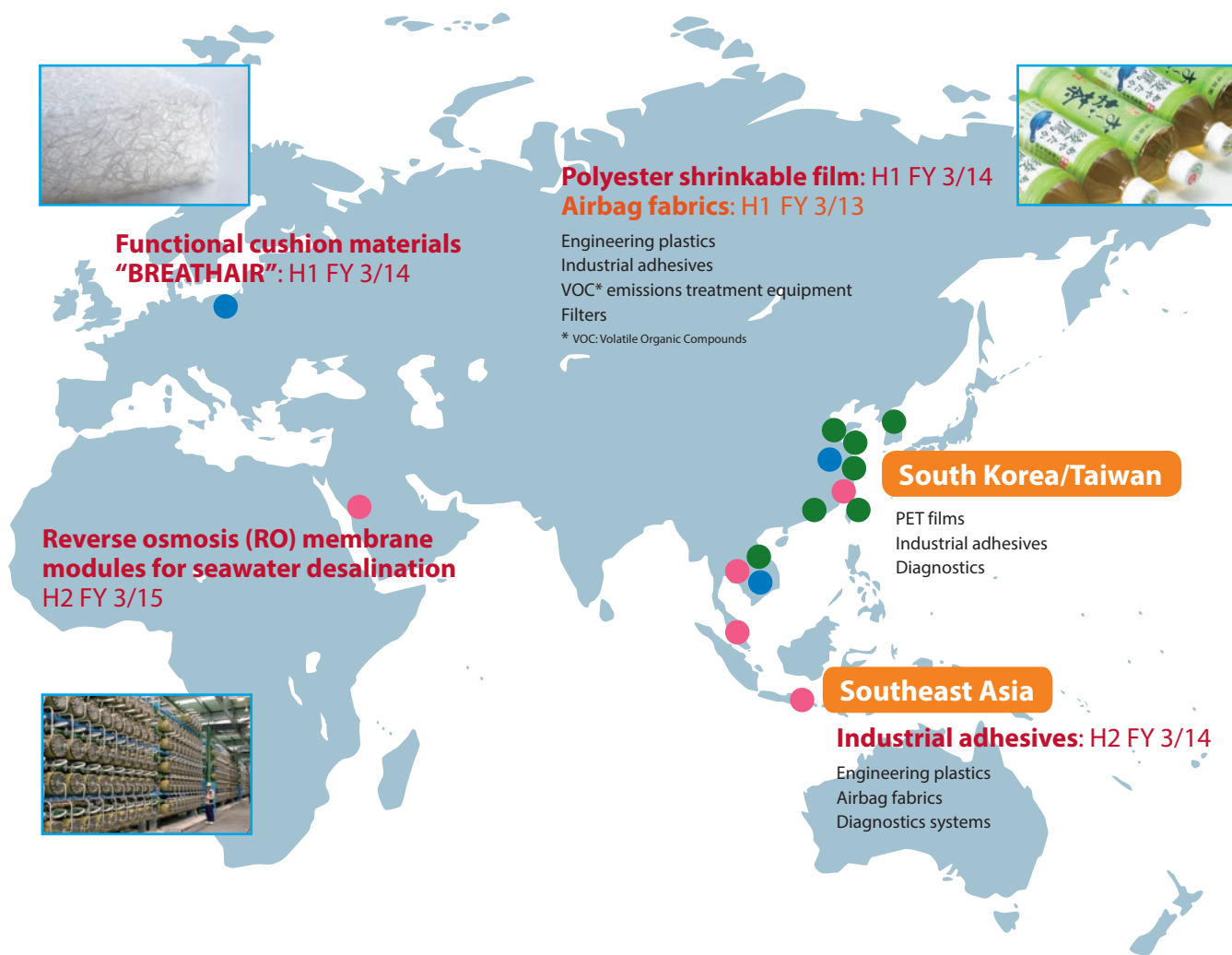
billion (up ¥11.0 billion year on year), with operating income of ¥22.0 billion (up ¥4.9 billion), and net income of ¥9.5 billion (up ¥1.9 billion).

## Medium-Term Management Plan

(Fiscal 2011 to Fiscal 2014)

At present, Toyobo is working to become a “strong company with growth potential and stable profitability.” To attain this objective, Toyobo is devoting its resources to implement the following:

These initiatives to address priority issues remain unchanged from the



initial plan, but the operating environment has become more challenging than initially expected.

Developments causing this situation have been increases in raw material and fuel costs, the further appreciation of the yen, the decline in LCD sales prices, and other factors. To cope effectively with these conditions, the Toyobo Group is further accelerating its overseas business development and its creation of new products through its R&D initiatives.

However, in view of trends in the operating environment, Toyobo has revised its quantitative targets for fiscal 2014, the final year of the medium-term management plan.

The recently revised targets as of May 2012 are ¥350.0 billion in consolidated net sales (compared with ¥360.0 billion previously) and operating income of ¥22.0 billion (versus the previous target of ¥27.0 billion).

**(a) Investments to Expand Capacity**

The Toyobo Group is implementing investments, alliances, and M&A deals to increase its production capacity in its specialty businesses to capture emerging opportunities.

During the fiscal year ended March 31, 2013, investments completed in the industrial and packaging films business included multi-functional

polyester film facilities. Also, in contract manufacturing of pharmaceuticals, a new plant for production of injection agents was completed. The Company will also implement investments relating to films, fine polymers, automotive airbag fabrics, bioproducts, and functional membranes at the appropriate time.

**(b) Acceleration of Overseas Business Development**

The Toyobo Group will accelerate the development of its business activities in overseas markets that are continuing to grow, especially in China. Thus far, the Company's principal business has been exporting products from Japan to overseas markets. Going forward, however, the



Company is moving forward to structure a more-autonomous model for overseas operations by establishing and upgrading its business bases that can conduct integrated overseas operations, from product development through to manufacturing and marketing.

In line with this policy, during fiscal 2013, in the field of automotive air-bag fabrics, the Group began the production of these fabrics in China and the United States. In the water treatment membranes business, the Group's reverse osmosis membrane elements for seawater desalination were adopted in the largest such plant in Saudi Arabia based on the Group's entry into the local market through a joint venture. In addition, in the shrinkable film market in China, where growth is expected going forward, the Group made a decision to invest in a joint venture

in China through an alliance with a film manufacturer based in South Korea.

Going forward, through alliances with companies based overseas, the Group will accelerate the development of its overseas business operations.

### (c) Improvement of the Product Portfolio

The activities of the Toyobo Group comprise many specialty businesses. To build positions of strength in each of these businesses, we believe it will be important to continue developing new products and increasing value added.

In 2012, Toyobo launched three major new products: "Nerbridge," a conduit for regeneration of peripheral nerves that have been severed or damaged, an industrial film for

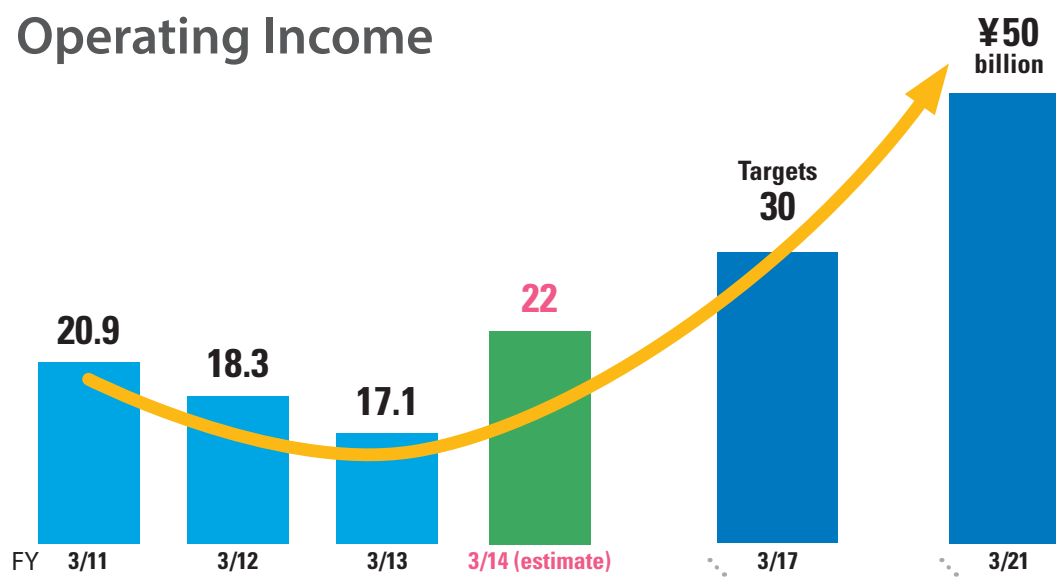
LCDs that has special optical properties, and a new polyester shrinkable film for labels that improves productivity while also being thinner and stronger. Going forward, we will take initiatives to improve our product portfolio by expanding sales of these newly introduced products and accelerating work on products currently under development.

### (d) Improving Asset Efficiency

In the textile business, we have moved ahead without hesitation with structural reforms that have involved downsizing and scrapping of facilities.

Also, among specialty businesses, we will withdraw from the tire cord business at the end of December 2013. Through this and other measures, we will continue to emphasize asset efficiency as a major indicator of management performance.

## Operating Income





## Looking to Fiscal 2021

With the aim of being a “strong company with growth potential and stable profitability,” Toyobo is targeting net sales of ¥500 billion in fiscal 2021, operating income of ¥50 billion (with an ROA of 10%), and a debt-to-equity ratio of 1.0. Our target for overseas sales in fiscal 2021 is ¥150 billion, which is about two times the level in fiscal 2013. In the environment and life science businesses, we are aiming for sales of ¥190 billion, or about 3.5 times the fiscal 2013 level. We believe that our next medium-term management plan will be extremely important as we approach fiscal 2021, and we are scheduled to begin its formulation in the latter half of the current fiscal year.

## Return to Shareholders

Toyobo considers providing returns to shareholders to be one of its highest priorities. Our basic policy is to continually provide a stable dividend, determined in a comprehensive consideration of such factors as improving the financial position, profit levels, and retention of earnings for future investment.

In accordance with this policy, Toyobo plans to pay a year-end dividend for the subject fiscal year of ¥3.50 per share. For fiscal 2014, we expect to pay a dividend of ¥3.50 per share, based on the forecast net income of ¥9.5 billion.

I would like to offer my sincerest appreciation to our shareholders and investors, and ask for your continued support.

August 2013



Ryuzo Sakamoto  
President & Chief Operating Officer



# New Products

For companies to survive and grow, they must change with the business environment and introduce innovative products that meet the needs and trends of the times. The key to this is new product development.

In fiscal 2013, Toyobo was successful in developing products that are expected to grow in the environment, life science, and high-function fields.

Examples in the high-function fields include new LCD and optical-use polyester films (super retarder films). In the environment field, Toyobo developed a new shrinkable film for labels, and in the life science field, a conduit for regenerating damaged peripheral nerves.

These new products are explained below.

## Development and Sales Launch of "Nerbridge" Peripheral Nerve Regeneration Conduits

Toyobo has developed a new medical device, "Nerbridge" (a conduit for peripheral nerve regeneration), that promotes the regeneration of nerves that have been damaged by disease or accidents.

In general, when nerves are damaged by disease or accidents, patients undergo surgery for autografts or nerve suture. In the case of autografts, a healthy nerve is extracted from the patient's own body and transplanted to the area where nerves have been injured, but this surgery leaves a scar on the healthy portion the nerve is removed from, and afterward, patients may experience pain, numbness, or other side effects. On the other hand, in the case of nerve suture, the severed nerves are sewn directly together, but when force is applied to the affected area, there are cases where the nerves do not heal and the patient may experience unusual or painful sensations. To solve the problems with existing treatments, Toyobo developed its "Nerbridge" medical device.

"Nerbridge" conduits are inserted around the damaged portion of peripheral nerves (nerve gaps) that have been severed or otherwise damaged and then fastened. Their function is to induce the portion of the nerve connected to the patient's central nervous system to regenerate and grow in the direction of the portion of the nerve connected to the patient's peripheral

nerve endings. In addition, since "Nerbridge" conduits are composed of polyglycolic acid, a new collagen, and other superior materials that decompose within the body, they dissolve and are absorbed by the patient's body in about three months. Treatment using "Nerbridge" conduits is expected to be equally effective or more effective (as evidenced by the recovery of sensation and other attributes) than the previous techniques of autografts and nerve suture.

For the time being, Toyobo is marketing these devices for use limited to the regeneration of nerves in the hands, including the fingers. In addition, although Toyobo has received permission from the Ministry of Health, Labour and Welfare for the manufacturing and marketing of "Nerbridge" for the regeneration of peripheral nerves (excluding dura mater nerves, such as those in the brain and spinal cord), Toyobo is scheduled to make cooperative arrangements with medical institutions, and, when preparations have been completed, will begin step-by-step expansion beyond the treatment of the nerves of the hand, including the fingers.

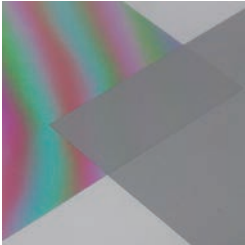
Toyobo is aiming for its sales of ¥5.0 billion annually by fiscal 2016.

## Development of New Films for LED and Optical Uses That Overturns the Conventional Wisdom about Previous Materials

—Development of Polyester Film That Uses the Features of LED Light Sources to Eliminate Interference Fringes ("Rainbow *mura*"\*)

Toyobo has previously marketed "COSMOSHINE", an optical film made with polyester as a raw material, for use as a diffusion film for liquid crystal displays (LCDs), film for prism lenses, and film for indium tin oxide films in touch screens.





Conventional PET film (left),  
"COSMOSHINE" (SRF type) (right)

In addition, since 2009, Toyobo has begun R&D and moved forward with the development of new films for LED and optical uses. As the backlight source for LCDs has shifted to LEDs, Toyobo has been successful in developing super retarder film (SRF) that eliminates the rainbow *mura*\* that formerly could not be eliminated from existing polyester films. This new film draws on the film production technology that Toyobo has accumulated in manufacturing "COSMOSHINE" and packaging films.

"COSMOSHINE" (SRF type) is a new kind of film made possible by a contrarian concept that overthrows existing common knowledge that held that materials, other than polarizer materials, used thus far in LCDs must be isotropic.

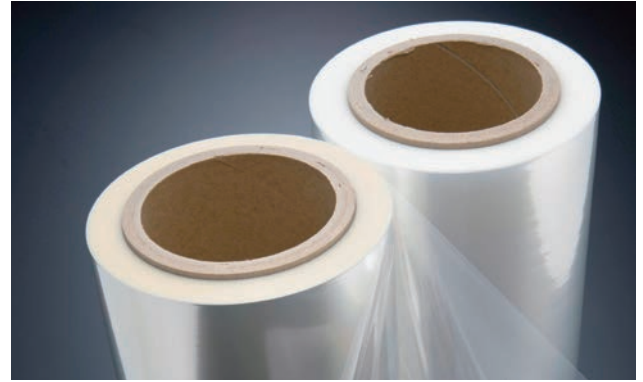
Production of this new type of film is possible with the modification of a portion of equipment currently in use by Toyobo for manufacturing optical films. New investments in major facilities will be unnecessary. Toyobo has already converted one production line at its Inuyama Plant, one of its main film production facilities, and switched to mass production. Output of one production line is approximately 10 million m<sup>2</sup>/month.

It will be possible to further increase production capacity in line with market trends. Toyobo is aiming for its annual sales of ¥15.0 billion in 2015.

### Features (new functions) of "COSMOSHINE" (SRF type):

- ▶ Elimination of coloration (rainbow *mura*) due to birefringence
- ▶ Closer conversion of the polarized light given off from LCDs into more natural light
- ▶ Superior adhesive properties for combining with various other materials; Principal Uses:
  - ▶ As a protective film for PVA polarizers
  - ▶ Various base film materials for touch screens
  - ▶ Improves the visibility of LCDs (usable with polarizing sunglasses)

\*"Rainbow *mura*" is a phenomenon in which color unevenness, similar to that of a rainbow, appears, because of the birefringence of the material.



### Expanding Sales of a New Polyester Shrinkable Film for Labels

Toyobo has sold polyester film for use as shrinkage labels previously, but Toyobo has now developed a new polyester film for thermal shrinkage labels that responds to customer needs, such as improvement in perforation properties, thinness, and greater strength. This new film succeeds in being thinner as it also improves productivity, and Toyobo has set a sales target in the Japanese market of ¥5.0 billion a year by fiscal 2016.

Some of the brands employing this new film are placing greater emphasis on eco-friendliness, and Toyobo has responded by mixing some resins recycled from PET bottles in the film.

To gain a foothold in the Chinese market for thermal shrinkable films, where growth is expected, Toyobo has decided to invest in a Chinese joint venture film company in partnership with a South Korean-based film manufacturer. Toyobo and its business partners will promote the development of this new, more eco-friendly film as a replacement for polyvinyl chloride (PVC), which is currently used for shrinkable films in China.



### Installation of New Polyester Film Manufacturing Equipment

Toyobo's film business is divided into industrial films and packaging films. Previously, these two types were produced by using dedicated equipment for each type. This time, however,

Toyobo will install multi-function film manufacturing equipment for producing both industrial and packaging polyester films at its Tsuruga film plant (located in Tsuruga City, Fukui Prefecture). The amount of this investment will be approximately ¥10 billion, and one line of this new equipment will have a production capacity of 22,000 tons per year. Production will be started up in October 2013.

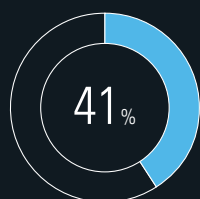
As a result of this investment, it will be possible to increase the efficiency of overall film production. In the industrial film business, this new equipment will be used for manufacturing films for the increasingly broad range of new uses. In addition, in the packaging film business, Toyobo will create a more competitive production system and plans to work to maintain its position as the No. 1 supplier in the Japanese market.

# At a Glance

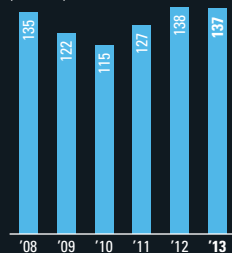
## Business Segments and Fields

### Films & Functional Polymers

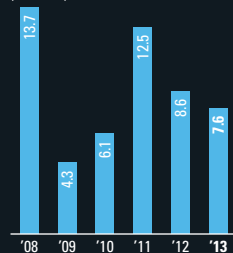
Percentage of Net Sales



Sales  
(¥ billion)



Operating Income  
(¥ billion)



#### Industrial films

- PET films for (i) FPD use, (ii) photovoltaic backsheets, (iii) touch screens, (iv) ceramic capacitor process sheets, and (v) other industrial uses
- Synthetic paper

#### Packaging films

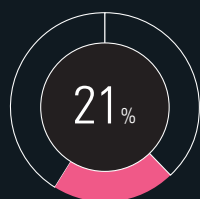
- PET, polyolefin, polyamide for food packaging, and shrinkable films for labels

#### Functional polymers

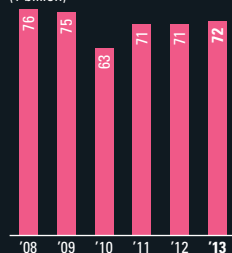
- Engineering plastics
- For industrial adhesives, coatings: co-polyester, and modified polyolefin
- Acrylate polymers

### Industrial Materials

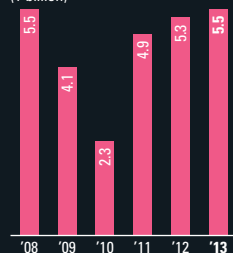
Percentage of Net Sales



Sales  
(¥ billion)



Operating Income  
(¥ billion)



#### Functional fibers

- Airbag fabrics, polyester yarn for tire cord

#### High-performance fibers

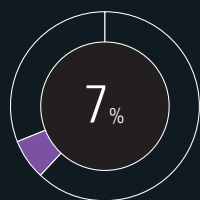
- Ultra-high-strength polyethylene fiber
- PBO fiber: extreme heat-resistant, high-tenacity fiber

#### Functional filters, non-woven fabrics

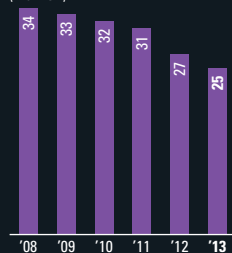
- Filters for (i) automotive components, (ii) office equipment, and (iii) air purifiers
- VOC emissions treatment equipment and systems with activated carbon filters
- Non-woven fabrics for automotive parts and construction materials

### Life Science

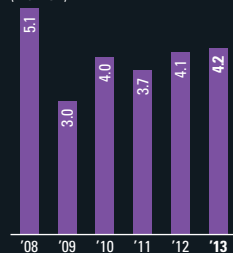
Percentage of Net Sales



Sales  
(¥ billion)



Operating Income  
(¥ billion)



#### Bioproducts

- Enzymes for diagnostics, diagnostic systems and reagents, research reagents, and cosmetic ingredients

#### Pharmaceuticals

- Contract manufacturing (injections, raw pharmaceuticals, and antibody drugs)

#### Medical membranes, equipment, and devices

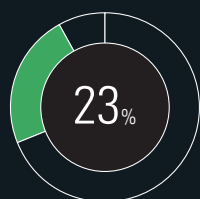
- Hollow fiber membranes for artificial kidneys, and anti-clotting materials
- Medical treatment devices

#### Water treatment membranes

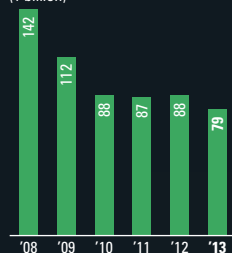
- Reverse osmosis membranes for seawater desalination
- Ultra-filtration membranes for drinking water

### Textiles

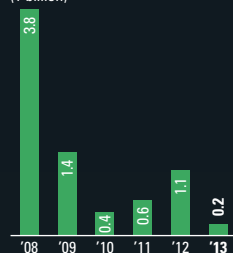
Percentage of Net Sales



Sales  
(¥ billion)



Operating Income  
(¥ billion)



#### Textiles






- Functional textiles

#### Apparel products

- "Munsingwear": sportswear

#### Acrylic fibers

- "EXLAN": acrylic fibers

Automotive	Electronics & Information Displays	Environment	Life Science	Lifestyle & Safety
<p>Engineering plastics</p>	<p>PET films for optical uses</p> <p>Biomass high-melting-point polyamide for molding</p> <p>Co-polyester adhesives</p> <p>Modified polyolefin adhesives</p> <p>Acrylate polymers</p>	<p>Materials for photo-voltaic systems</p>		<p>Packaging films</p>
<p>Airbag fabrics</p> <p>Functional filters</p> <p>Non-woven fabrics</p>		<p>New catalyst for polyester</p> <p>VOC emissions treatment equipment and systems</p> <p>Functional filters</p>		<p>High-performance fibers</p> <p>Three-dimensional spring-structured fibers</p>
		<p>Water treatment membranes</p>	<p>Medical membranes</p> <p>Enzymes for diagnostics</p> <p>Diagnostic systems and reagents</p> <p>Medical treatment devices</p> <p>Pharmaceuticals (contract manufacturing)</p>	<p>Cosmetics ingredients</p>
				 <p>Functional textiles</p>



# TOPICS

## Capital Investment

### Expansion in Injection Production Facilities in Contract Manufacturing of Pharmaceuticals

In its contract manufacturing of pharmaceuticals, Toyobo produces not only ethical drugs prescribed by hospitals but also drugs in the clinical testing stage that are under development. At present, the market for contract manufacturing is expanding at between 5% and 10% annually, and the estimated market size in Japan alone in 2013 was about ¥600 billion. Toyobo has established a strong reputation in the pharmaceutical industry for its capabilities in producing biopharmaceuticals, and its technology has been evaluated highly. For these and other reasons, Toyobo receives many contracts for the production of biopharmaceuticals, which are more difficult to manufacture than low-molecular drugs, from the development stage.

In March 2013, Toyobo began production at its new injection line. The new facility secures a highly

bacteria-free production environment by featuring (a) an enclosed sterilizable space called "RABS (Restricted Access Barrier System)" and (b) an intensive usage of single-use operating procedures. Other capabilities of the new production line include production of many items in small lots and the ability to meet the Good Manufacturing Practices (GMP) of the three major markets: Japan, North America, and Europe. We will aim for full capacity operation during 2013.

Looking ahead, drawing on its sophisticated technological capabilities, Toyobo will continue to expand its high-value-added contract manufacturing of antibiotic drugs and other special pharmaceuticals and new drugs that require advanced production technology.

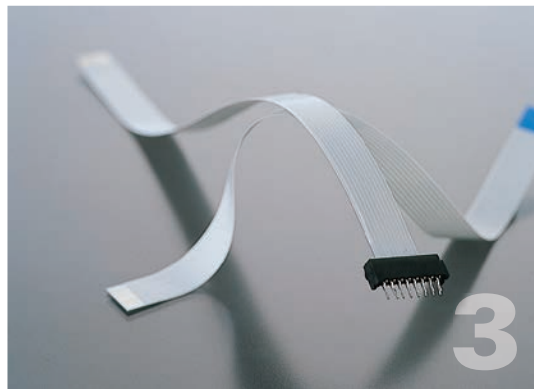
### Entry into the Airbag Business in North America

Thus far, Toyobo has manufactured airbag fabrics in Japan, Thailand, and China, selling principally to Japanese-related automotive manufacturers. In recent years, as Japanese automotive companies have increased local production

overseas, they have also proceeded with procurement of parts and materials in the local markets. In addition, with the growth of the BRICs and other emerging country markets and the tightening of legal regulations in the United States, the demand for airbags has expanded worldwide.

Amid these developments, Toyobo has worked to expand its airbag business and decided to establish an airbag fabric sales company in the United States. Since the establishment of this company in April 2012, it has moved forward to obtain certifications from local automotive parts manufacturers and is scheduled to begin full-scale sales activities in summer 2013.

The total expenditures on establishing this sales infrastructure were approximately ¥1 billion. Toyobo's airbag business, in addition to operations in Japan and Thailand, went into full-scale manufacturing and with sales operations in China in April 2012. In addition to the North American operations, Toyobo will aim to structure a global supply system.



### Manufacturing and Sales Company for “VYLON” Established in Thailand

Toyobo has manufactured “VYLON” co-polyester resin and continues to do so in Japan, selling it mainly to customers in the IT products and other electronics industries. In recent years, the number of Japanese companies setting up operations in China, the countries of ASEAN, India, and elsewhere as well as the number of European and U.S. companies shifting production to these countries has grown, and local companies overseas have also entered the electronics markets. Moreover, these countries are expected to show sustainable growth going forward.

In view of these prospects, to expand sales of “VYLON” into the electronics-related markets, Toyobo decided to establish a joint venture for the manufacturing and sale of “VYLON” in partnership with Mitsubishi Corporation in Thailand, a country that offers favorable tax treatment, highly convenient logistics, and other advantages. Toyobo will be in charge of production management and technical support,

and Mitsubishi Corporation will draw on its extensive business experience in Thailand and cooperate in the material procurement and product marketing.

The joint venture was established in July 2012. Production will begin in January 2014 and reach full capacity in 2016. The newly established company is scheduled to be Toyobo’s base for business operations in the Chinese, Indian, and ASEAN markets, and it will work to expand sales.

### Overseas Expansion

#### Shipments Begin to the World’s Largest Seawater Desalination Plant

Toyobo’s “Hollosep” reverse osmosis membrane elements for seawater desalination have been selected for use in the Ras Al Khair Plant in Saudi Arabia, which is the largest seawater desalination facility in the world. Shipments began in March 2013 in preparation for the

commencement of operations in 2014. This plant will use Toyobo’s reverse osmosis membrane elements and will produce 345,000 cubic meters of water per day.

In addition, production has begun of “Hollosep” reverse osmosis membrane elements for seawater desalination at the Arabian Japanese Membrane Company, LLC (AJMC) in Saudi Arabia, which is a three-company joint venture with ACWA Holding of Saudi Arabia and ITOCHU Corporation.

Toyobo is planning to make AJMC a base for expansion of this business in Middle Eastern seawater desalination, where further growth is expected in the years ahead. Toyobo is planning to expand sales of reverse osmosis membrane elements for seawater desalination broadly,



# TOPICS



not only in Saudi Arabia, but also in the other countries of the Middle East and North Africa.

## Operations in Indonesia

In its sports apparel business, Toyobo makes use of high-value-added specialized materials. To differentiate itself from other companies, Toyobo is producing high-quality materials in Indonesia, where operations are highly cost competitive.

At present, Toyobo's operations in Indonesia include two manufacturing subsidiaries, P.T. TOYOBO KNITTING INDONESIA (TKI), which is engaged in knitting and dyeing activities, and P.T. SHINKO TOYOBO GISTEX (STG), which engages in sewing operations.

TKI uses materials that it procures locally and produces fabrics, which are developed and planned in Japan, to Japanese quality standards. STG uses the fabric manufactured by TKI to make sports apparel.

The sports apparel produced by TKI and STG is sold not only in Japan but around the world. Since these production arrangements offer advantages to customers, enabling them to purchase products that meet Japanese quality standards at low prices, the products have earned a high appraisal among



users. To respond to expanding market needs, TKI and STG are increasing production capacity.

## Market Development for 3D Fiber "BREATHAIR" in Europe

"BREATHAIR" is a three-dimensional spring-structured fiber created by use of Toyobo's "PELPRENE," which is a polyester elastomer. It is in wide use as a cushion material that replaces urethane foam.

Responding to the increasing market demand for this fiber in Europe, TOYOBO Europe GmbH (headquartered in Dusseldorf) will begin the further development, manufacturing, and sales of "BREATHAIR" in Europe. To do this, Toyobo is making about ¥700 million in capital investments in Germany to construct a manufacturing facility with an annual capacity of 1,100 tons, which is scheduled to go into operation in August 2013. Looking ahead, Toyobo will further increase the sales of "BREATHAIR" in Europe for such applications as furniture as it also develops new uses such as mattresses for medical use and seats for boats, automobiles, and trains.

Toyobo began mass production of "BREATHAIR" in 1996. It has earned a strong reputation as a superior cushion material and has been

adopted for use in the seats of trains, especially the N700 series of Shinkansen trains, motorcycles, and other applications.

## Continued Evolution in the Bio-Businesses

During the 1990s, Toyobo has been reinforcing its commitment in SMBG (Self-Monitoring of Blood Glucose) business, offering material enzymes used for glucose sensors. Thereafter, through a few renewals in the enzyme properties using gene recombinant technologies, Toyobo launched in 2009 "FAD-GDH," the latest version that enables even more-accurate glucose measurement.

At present, Toyobo has the second-largest global market share in the enzyme business for diagnostic use.

Making full advantage of micro-organism fermentation and purification technologies it has been accumulating over the decades in enzyme business operations, Toyobo is expanding further into diagnostic systems, materials for cosmetics, and other fields.





# R Research and D Development



Toyobo began its operations in 1882 as a textile company, but from that time to the present, Toyobo has made transitions into new businesses after taking account of social conditions and requirements as well as the business environment. Today, Toyobo positions films, functional polymers, industrial materials, and life science as its core businesses, or specialty businesses, and is aiming to grow and develop as “the category leader, continuing to create new value that contributes to society in the environment, life science, and high-function products fields.”

Through making transitions into new businesses, Toyobo has introduced and acquired a wide range of technologies. Among these, Toyobo places polymerization, modification, processing, and biotechnology as its core technologies. Through further in-depth research on and combining of these core technologies, Toyobo has

developed high-function products in the environmental and life science fields and proceeded with the nurturing of new businesses. Toyobo works to accelerate its R&D activities by participating in Japan’s national projects, by advancing aggressively into alliances with academia and industry in Japan and overseas as well as by conducting joint research with other companies in advanced fields in the environmental and energy areas.

At the same time, Toyobo is substantially expanding its business activities in overseas markets, and in its R&D also, to understand the needs of local markets, gather information, and respond quickly to customer needs, Toyobo is strengthening its teamwork with its overseas subsidiaries and offices and establishing local technology centers.



## Intellectual Property Strategy

The Toyobo Group works to secure patent protection for the vast accumulation of inventions that have been made over many years of research and development. At the same time, to sustain and further develop its business activities, Toyobo has established systems for responding quickly to the patent-related activities of other companies, including competitors.

In recent years, as intellectual property functions have received increased attention, Toyobo has worked to give these activities a strategic orientation. For example, Toyobo has created intellectual property databases and used these for analytical studies, which are then applied to assist in the commercialization of Toyobo's own products and for keeping track of industry trends. In addition, along with the globalization of business activities, Toyobo has formulated and implemented overseas intellectual property strategies.

Toyobo's Intellectual Property Operating Office works with the personnel responsible for intellectual property related liaison who have been appointed by the business divisions, R&D Division, and other divisions to convene patent review meetings appropriate to the stage of development of various R&D projects as well as intellectual property strategy meetings. Through these intellectual property related activities, the office conducts research and analyses, applies for patents, and upholds the Company's rights in close coordination with the Toyobo Group's corporate strategies and R&D strategies.

# R Research and D Development

## "XENOMAX" High Heat-Resistant Polyimide Film

One of the materials that Toyobo has conducted R&D on for many years is "XENOMAX," a polyimide film that has the same level of dimensional stability over a wide thermal range as silicon used in semiconductors, high heat resistance, and excellent flame retardance.

"XENOMAX" has the same low linear expansion coefficient as silicon over a wide temperature range, from -50 to 450 degrees centigrade. Moreover, this product has a decomposition temperature of over 500 degrees centigrade, which is the highest of any organic polymer film, and even in a 450-degree environment, it shows almost no change in shape. Also, because of its molecular structure, "XENOMAX" is resistant to combustion and has been certified as the thinnest polymer film that does not contain any halogen compound under the UL Certification System, an international indicator of resistance to combustion.

In view of these properties, Toyobo is aiming to enter the market for next-generation electronic materials. In displays and high-performance electronic devices, inorganic materials, such as ceramics and glass, are used as the substrates in semiconductor devices because they have properties close to silicon. However, since these inorganic materials tend to be thick, heavy, and easily broken, thinner and lighter polymer films are taking their places, thus enabling manufacturers to raise the specifications of portable electronic devices, including making them more compact and lighter. At present, Toyobo is proceeding with development jointly with a number of electronic device manufacturers, and its products are expected to be adopted in the manufacturing of the compact, light electronic device materials and light, flexible display substrate materials that are indispensable in tomorrow's advanced information society.

# Sustainability/ Corporate Governance

## Becoming a “Strong Company with Growth Potential and Stable Profitability”

As the Toyobo Group looks to the year 2020, it is aiming to be “the category leader, continuing to create new value that contributes to society in the environment, life science, and high-function products fields.” The Group believes that corporate activities, business activities, and CSR activities should all be integrated. What is important is to implement activities to deal with changes in the operating environment and among stakeholders.

Recently, changes in the external environment have been very rapid. These have included fluctuations in the prices of petroleum-based materials, changes in foreign exchange rates, the rise in the inflow of products from overseas, and changes in consumer behavior. Corporations must have a strong driving power to expand their business activities to respond to these changes.

To measure up to the challenge, the Toyobo Group wants to become a “strong company with growth potential and stable profitability” as well as a company that contributes to societies around the world through its business activities, accelerates its expansion into overseas markets, and continues to develop new technologies and products.

## Contributing to a Sound and Sustainable Society with the Awareness That Companies Are Members of Society

To implement CSR activities, Toyobo has established its CSR Committee, which is chaired by the president. The mission of this committee is to fully comprehend and monitor overall activities related to all stakeholders, including shareholders and investors, suppliers, the community, employees, and the earth’s environment.

The basis for these activities is Toyobo’s CSR Charter, which states the awareness of Toyobo that “companies are members of society” and clearly calls for the Toyobo Group to actively fulfill its social responsibilities and contribute to the creation of a sound and sustainable society.

Some of the CSR initiatives being implemented by the Toyobo Group include the following. First, Toyobo has put in place a corporate governance system that enhances checking and monitoring functions and raises the transparency of decision making and the execution of business activities. In addition, to create a compliance framework and raise awareness among employees of the necessity to maintain high standards of compliance with laws and regulations, Toyobo has issued a *Compliance Manual* containing the Toyobo Group Employee Guidelines for Action, which serves as the code of conduct. Moreover, the Toyobo Group conducts compliance training not only in Japan but also in Group companies overseas.

Regarding risk management, each of the committees is developing systems that can effectively cope with risks. To deal with environmental issues, based on its “Basic Environmental Policy,” Toyobo is working to reduce the burden that its activities place on the natural environment, develop products that contribute to protecting the eco-sphere, conduct environmental preservation activities in the community, and respond affirmatively to biodiversity.

## Nurturing Global Human Resources

To strengthen the capabilities of its personnel to work in international assignments in various countries and regions, the Toyobo Group is conducting education and training programs for employees in Japan and the staff of its overseas subsidiaries.

For personnel in Japan, Toyobo has created its “short-term overseas training program.” Under this program, Japanese employees are stationed for about a year at Toyobo’s overseas subsidiaries, other Group companies, or on the properties of business partner companies where they are given a specific mission that is directly related to Toyobo’s business.

For staff employed by Toyobo’s overseas subsidiaries, arrangements are made for them to hold discussions with Japanese staff who are candidates for managerial positions. Through these opportunities for interchange and friendly rivalry, Toyobo is working to raise their sense of belonging to the Toyobo organization and strengthen their motivation.

## Green Procurement

Toyobo is taking initiatives to protect the natural environment through its products and manufacturing activities.

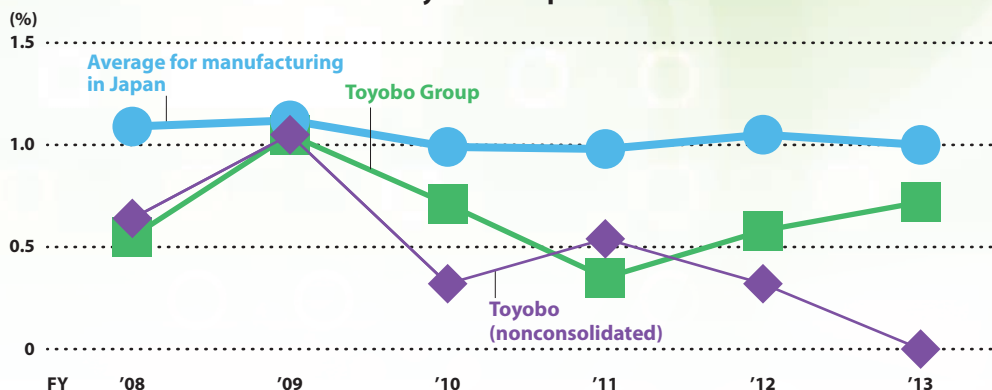
Toyobo places priority on procuring raw materials that have a minimum impact on the environment and strives to contribute to creating a sustainable society. As part of these activities, Toyobo pursues “green procurement” policies. Toyobo requests its business partners to supply information on the chemical substance content of the raw materials they use to ensure: (1) that none of the substances forbidden by Toyobo regulations are contained in the products they supply and (2) that the amounts of harmful substances specified by Toyobo are indicated.

In addition, for other items in general, Toyobo promotes the green procurement of products that bear the “Environment Label.”

## Initiatives to Reduce the Burden on the Environment

To protect the air and water, the Toyobo Group promotes reduction in the volume of its emissions. To reduce the environmental burden of emissions into the atmosphere, Toyobo has made the transition from the use of heavy fuel oil to LNG as the energy source in its boilers. In addition, to lower the environmental impact of effluent emissions into bodies of water, Toyobo has upgraded the capabilities of its waste treatment facilities and promoted the treatment of effluence that may have a particularly significant adverse impact on the environment as industrial waste.

### Trends in Incidence Ratios in the Toyobo Group



Note: Incidence ratios are the number of cases where employees had to take leave due to accidents per one million hours worked. Employees include those working for the Toyobo Group and its subcontractors. The incidence ratio is computed each year on a calendar-year basis.

Also, Toyobo has worked to reduce the volume of water used for and wastewater emissions from chillers as well as effluent emissions through the supervision of water usage in manufacturing processes and other measures.

## Labor Safety and Health

Toyobo's basic stance is that "ensuring safety is a major prerequisite for the conduct of corporate activities" and has, therefore, worked toward the goal of zero accidents.

Toyobo's safety management systems are based around its Safety and Security Promotion Committee. In addition, the Toyobo Group Environmental Safety Committee is responsible for implementing safety measures.

Toyobo (on a nonconsolidated basis) achieved zero lost time due to injuries caused by human error during the fiscal year under review. However, there were six incidents of lost time due to accidents among other Toyobo Group companies. The Group as a whole is continuing to aim for zero lost time due to accidents.

The Toyobo Group has newly prepared and is implementing a medium-term management plan for preventing labor accidents that covers the period from FY2012 through FY2016. In addition to attaining the objective of zero lost time due to accidents, the Group has also set a goal of 20 or fewer accidents per year that do not result in lost time.

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## Corporate Governance

### ► Board of Directors and Executive Officers

Toyobo is a "Company with Auditors" as defined by Japan's Companies Act and, under this governance system, has appointed one outside director and adopted the Executive Officer System. Under Toyobo's governance framework, a clear distinction is made between the roles of the Board of Directors, who concentrate on decision making as they perform management oversight functions, and the executives, who are in charge of business execution. This corporate governance system increases the transparency and fairness of management and makes it possible to make prompt decisions as well as conduct business efficiently.

The Board of Directors has nine members, one of whom is an outside director, whose role is to ensure transparency and fairness in Toyobo's management. In addition, in view of the diverse and specialized nature of Toyobo's businesses, and to make decisions accurately and quickly, the eight members of the Board of Directors, after exclusion of the outside director, also hold positions as Executive Officers.

Regarding "business execution," the President and Chief Executive Officer call meetings of the Board of Corporate Executive Officers and the Board of Corporate Officers. These committees make decisions regarding the items for business execution assigned to them by the Board of Directors, make reports on companywide projects, and perform certain other duties.

### ► Corporate Auditor System

The Board of Auditors has four members, two of whom are Outside Auditors. Their responsibilities include attending meetings of the Board of Directors and other important meetings, stating their opinions as necessary, and auditing the performance of duties by the Board of Directors based on audits of operations in the various divisions. KPMG AZSA LLC has been appointed to conduct the independent audits required under Japan's Corporation Law. The Board of Auditors receives plans for auditing and audit reports from the independent auditor and meets with the independent auditor periodically to exchange information.

For further details:

To view, download them online at [www.toyobo-global.com/company/governance/](http://www.toyobo-global.com/company/governance/)

# Management

As of June 27, 2013

## Board of Directors



President  
Ryuzo Sakamoto



Hiroshi  
Takahashi



Kazumasa  
Koyama



Hiroshi  
Takabayashi



Seiji  
Narahara



Toshiyuki  
Matsui



Kunio  
Yano



Shigeki  
Sano



Michio  
Ogimura\*

\* Outside Director

## Board of Corporate Auditors

**Setsuo Shimomichi**

**Morito Morita**

**Hiroshi Imanaka\*\***

**Akio Ukai\*\***

\*\* Outside Corporate Auditor

## Corporate Officers

■ Chief Operating Officer

**Ryuzo Sakamoto**

■ Corporate Executive Officers

**Hiroshi Takahashi**

**Kazumasa Koyama**

**Hiroshi Takabayashi**

**Shinichi Onizuka**

■ Corporate Officers

**Seiji Narahara**

**Toshiyuki Matsui**

**Kunio Yano**

**Shigeki Sano**

**Hisao Nishinaka**

**Toshitake Suzuki**

**Hiroyuki Sato**

**Jiro Suwa**

**Shinichi Teshima**

**Yuji Oita**

**Masakazu Saito**

**Teruo Ohigashi**

**Hitoshi Ueno**

**Shigeo Takenaka**

# Investor Information

As of March 31, 2013

## Stock Listing

Tokyo

## Stock Code

3101

## Transfer Agent

Sumitomo Mitsui Trust Bank, Ltd.  
1-4-1, Marunouchi, Chiyoda-ku,  
Tokyo 100-8233, Japan

## Independent Auditors

KPMG AZSA LLC  
3-6-5, Kawara-machi, Chuo-ku,  
Osaka 541-0048, Japan

## Common Stock

Authorized: 2,000,000,000 shares  
Issued: 890,487,922 shares

## Paid-in Capital

¥51,730 million

## Number of Stockholders

104,131

## Major Shareholders

	Number of shares held (thousands)	Percentage of voting rights (%)
Japan Trustee Services Bank, Ltd. (Trust Account)	46,586	5.24
The Master Trust Bank of Japan, Ltd. (Trust Account)	27,368	3.08
Nippon Life Insurance Company	21,885	2.46
Toyukai (Contractor Share Holding)	16,485	1.86
Mizuho Corporate Bank, Ltd.	13,393	1.51
Toyobo Employee Stockholders' Association	13,260	1.49
The Bank of Tokyo-Mitsubishi UFJ, Ltd.	13,214	1.49
Sumitomo Mitsui Banking Corporation	13,034	1.47
Meiji Yasuda Life Insurance Company	11,029	1.24
Japan Trustee Services Bank, Ltd. (Account of Retirement Benefit Trust for Sumitomo Mitsui Trust Bank, Limited)	9,054	1.02

# Corporate Data

As of March 31, 2013

## Head Office

2-8, Dojima Hama 2-chome,  
Kita-ku, Osaka 530-8230, Japan  
Telephone: +81-6-6348-3111

## Established

May 1882

## Number of Employees

3,217 (Nonconsolidated)  
10,566 (Consolidated)

## Branches

### Tokyo Branch

Higashi-Gotanda Square Building,  
10-2, Higashi Gotanda 2-chome,  
Shinagawa-ku, Tokyo 141-8633, Japan

### Nagoya Branch

2-3, Sakae 3-chome, Naka-ku,  
Nagoya 460-0008, Japan

## Research Center

1-1, Katata 2-chome, Otsu,  
Shiga 520-0292, Japan

## Overseas

### TOYOBO (SHANGHAI) CO., LTD.

Room 2301-A, Dawning Centre Tower B,  
No. 500 Hongbaoshi Road, Shanghai, China  
Telephone: +86-21-6208-3030

### TOYOBO U.S.A., INC.

1540 Broadway, 25th Floor,  
New York, NY 10036, U.S.A.  
Telephone: +1-212-398-0550

### TOYOBO Europe GmbH

Klosterstrasse 18, 40211  
Dusseldorf, Germany  
Telephone: +49-211-976229-10

### TOYOBO (THAILAND) CO., LTD.

10 House Lumpini Building, 28th Floor,  
Room 2801/1, South Sathorn Road,  
Thungmahamek,  
Bangkok 10120, Thailand  
Telephone: +66-(0) 2285-6318-6324

### TOYOBO DO BRASIL LTDA.

Av Doutor Chucri Zaidan, 771, Vila Cordeiro.  
Sao Paulo, Brasil  
CEP 04583-913  
Telephone: +55-11-5509-7801 (Sao Paulo Office)

<http://www.toyobo-global.com/ir/>

## TOYOBO CO., LTD.

2-8, Dojima Hama 2-chome,  
Kita-ku, Osaka 530-8230, Japan  
Telephone: +81-6-6348-3111  
URL: <http://www.toyobo-global.com/>

## INVESTOR RELATIONS

Telephone: +81-6-6348-3044  
E-mail: [ir\\_g@toyobo.jp](mailto:ir_g@toyobo.jp)

### COVER PHOTOS

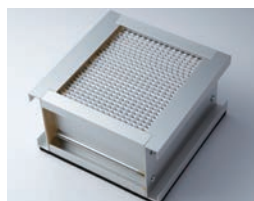
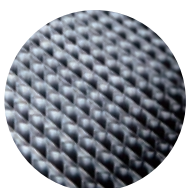
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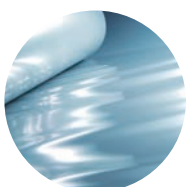
An application of  
polyester elastomer "PELPRENE"



Hollow fiber membranes



Filters



Films