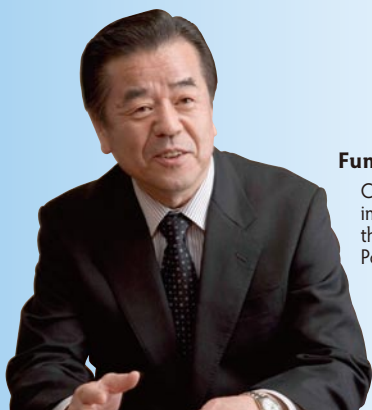


FILMS AND FUNCTIONAL POLYMERS



Fumiaki Miyoshi

Corporate Executive Officer,
in Charge of
the Films and Functional
Polymers Segment

Business Division Policy

This segment consists of the films and functional polymers business units. We provide specialty products to meet market needs, based on such processing technologies as polymer reforming and film production.

Results for Fiscal 2009

Sales volume fell sharply in the second half of fiscal 2009 with the acute downturn in the business environment, marked by inventory adjustments among customers in the household electronics, automotive and electronics components fields, as well as continued appreciation of the yen. Sales totaled ¥122.3 billion (down 9.2% year on year), with operating income of ¥4.3 billion (down 68.4%).



Industrial films
"COSMOSHINE"

Industrial films ▶ Toyobo's polyethylene terephthalate (PET) film "COSMOSHINE" has a favorable reputation in the market for its high transparency and good adhesion, and has gained a broad range of users in the PET film market for flat-panel displays. However, both sales and earnings were down considerably in this business as a result of slowdown in the flat panel display market and fiercer competition, and sluggish sales of films for ceramic condenser applications from the second half of the fiscal year.

Packaging films ▶ This business consists mainly of films for food packaging. Toyobo is a leading supplier of packaging films in Japan, offering a wide range of materials including polyolefin, PET and polyamide. Sales have risen in recent years as greater safety consciousness has kept demand steady for domestically produced products. Sales rose for the subject fiscal year as well, reflecting strong demand during the first half of the period.

Engineering plastics ▶ This business handles PET, polyamide, and polyester elastomer materials, utilizing mixing, compounding and mold simulation technologies to produce headlight components, engine covers, interior materials and other automotive products widely used by Japanese auto part manufacturers. The thermoplastic polyester



elastomer "PELPRENE" is a substitute for synthetic rubber, with a high durability that has led to its use in automotive applications, mainly CVJ boots. The product lineup was also further expanded with the addition of "GRILUX E." Both sales and earnings fell considerably in this business during the subject fiscal year as a result of the downturn in the automotive market.

"VYLON" series of industrial adhesives ▶ Toyobo holds the top market share in this business, mainly due to its advanced technology in compositional design for copolyesters, and ability to meet the specific needs of its customers. Both sales and earnings dropped considerably in this business during the subject fiscal year due to the falloff in orders for applications for data and recording devices, and electronics components.

Product and Market Trends

Toyobo has identified the three market sectors of electronics and information displays, automotive, and environmental and energy as growth fields for this segment.

In the electronics and information displays sector, we have finally begun to see signs of recovery in East Asia for the films for liquid crystal and optical applications used in flat-panel displays (for which demand fell sharply the previous fiscal year), due in part to Chinese government policies to subsidize consumer purchases of household electronics. Full-scale recovery in the North American and European markets,

however, is expected to take some time. Toyobo will continue to develop new technologies, cut costs further, and respond to the needs of the market.

In the automotive sector, we anticipate new business opportunities as automobile production recovers in the BRICs and other developing countries, and cars are made lighter and incorporate more electronic components. For engineering plastics, we provide precision development for automobile design, and are enhancing our marketing structure and product lineup. In response to the increasing use of automotive electronics, we will offer next-generation printed circuit board materials with superior thermal properties.

Strategies

[New Product Development]

Glass-fiber reinforced nylon resin ▶ "JF-30G" glass-fiber reinforced nylon resin is a material with exceptional modulus and strength developed with advanced compound and polymer alloy technologies. Its flexural strength is superior to that of metals or carbon-fiber reinforced resins, and as a substitute for steel or magnesium alloy is accelerating the trend toward lighter weights and thin-walled design in the automotive and electronic device fields.

Amorphous polylactic acid "VYLOECOL" ▶ Polylactic acid is one of the most common biodegradable, bio-based resins. But because ordinary polylactic acid is crystalline in nature it does not dissolve in ethyl acetate or other general-purpose sol-



Packaging films



An application of polyester elastomer "PELPRENE"



An application of polyester engineering plastic "VILOPET"

vents, making it unsuitable for use in inks, adhesives or paints. "VYLOECOL" is the world's first amorphous (noncrystalline) polylactic acid, created from Toyobo's polymerization technology. Because it dissolves in general-purpose solvents, "VYLOECOL" can be used in inks, adhesives and paints. The use of bioplastics is increasing rapidly as a means of environmental conservation, particularly in Europe. Development has already begun on using "VYLOECOL" in packaging material.

Resist ink for electronic circuits ▶ Toyobo has begun marketing polyimide resist ink for flexible printed circuits. Drawing on its polymer modification technologies, Toyobo has developed a heat curing solder-resist ink that will not crack or warp, while at the same time is non-halogen and flame-retardant. The ink can be applied directly onto the circuit board to form an insulating film, allowing for substantial reductions in work-hours required for the commonly used insulating film lamination method. Toyobo is also in the process of developing photosensitive resist ink for next-generation fine-pitch circuits.

[Overseas Business Strategy]

For engineering plastics, Toyobo continues to expand its automotive-related facilities in China, Thailand and North America. In the United States, to bolster our technical service we have stationed engineers in Detroit on a full-time basis, while in China and Thailand our local supply capacity is steadily increasing. For the "VYLON" series of industrial

adhesives, we are actively expanding sales of hot-melt adhesives, polyamide-imides, and polylactic acid (PLA) coatings. For the photo-functional materials business, we anticipate an increase in overseas business with the proactive switchover from analogue to digital printing.

[Capital Expenditure Plan]

Toyobo is scaling by capital investment in fiscal 2010 (ending March 31, 2010) as part of its measures to reduce costs. The Films and Functional Polymers segment is focusing on capital spending to lower costs, and will improve the profitability of mainstay products such as PET films for liquid crystal and optical applications. In addition, we plan to acquire testing devices and compact production equipment necessary for the development of next-generation products.

Outlook for Fiscal 2010

We forecast segment sales of ¥120.0 billion in fiscal 2010, with operating income of ¥4.8 billion. Since we anticipate that sluggish demand and difficult business conditions will continue through the first half of the period, we will implement a far-reaching program of equipment consolidation and cost reductions. At the same time, we expect a quick contribution to earnings from short-term development projects, and are preparing for the next growth stage by accelerating development of next-generation new products.



An application of conductive paste industrial adhesive "VYLON"

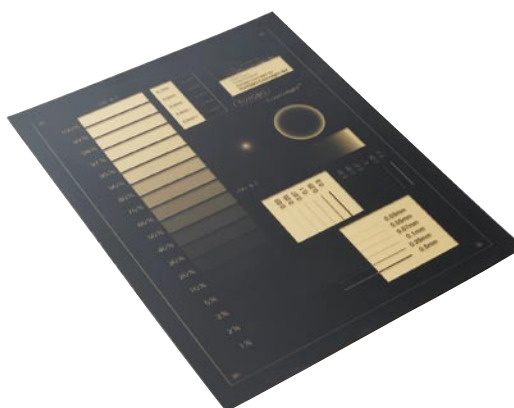
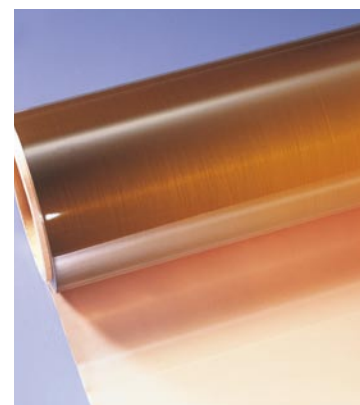


Photo-sensitive printing plates "PRINTIGHT"



Polyamide-imide dual-layer FCL