

TODA KOGYO CORP.

4100

Tokyo Stock Exchange Standard Market

3-Sep.-2024

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Summary

Growing its business by further improving its fine particle synthesis technology cultivated with iron oxides to create new materials and new products

TODA KOGYO CORP. <4100> (“the Company”) is a long-established chemical materials manufacturer that was founded as a manufacturer of Bengala (a pigment essential for ceramics painting glazes and historical buildings). It marked its 200th anniversary in November 2023. The Company has been evolving its fine particle synthesis technology cultivated with iron oxides to expand its business in a number of areas. These areas include high-purity iron oxides used in optical lens abrasives, magnetic iron oxides used in products such as audiotape and videotape, materials for toners used in copiers and printers, magnet materials used in motors and sensors for automobiles and home appliances, dielectric materials for multilayer ceramic capacitors (“MLCC”) widely used in smartphones, as well materials used in lithium-ion batteries (“LIB”) which are increasingly being used in electric vehicles (“EVs”) and other applications. Currently, the Company is engaged in two businesses; the Functional Pigments Segment (various coloring materials, environmental-related materials) and the Electronic Materials Segment (including magnet materials, dielectric materials, soft magnetic materials, and LIB materials).

1. Summary of FY3/24 results

In the FY3/24 consolidated results, net sales were ¥26,234mn (down 24.9% year-on-year (YoY)), operating profit was ¥117mn (down 91.4%), ordinary profit was ¥1,168mn (down 65.1%), and the loss attributable to owners of parent was ¥3,581mn (profit of ¥3,268mn in the previous period). In the Functional Pigments Segment, net sales were ¥8,119mn (down 44.9%) and segment profit was ¥838mn (down 58.1%). In sales, in addition to ¥5,352mn as the effect of the transfer of the equity interest in Toda United Industrial (Zhejiang) Co., Ltd. (hereafter, Toda United), sales of materials for copiers and printers and for environmental-related trended sluggishly due to the delay in the recovery of demand, while operating profit also struggled from the effects the rising prices of raw materials, in addition to the lower sales. In the Electronic Materials Segment, net sales were ¥18,115mn (down 10.4%) and segment profit was ¥2,560mn (up 7.2%). Sales decreased significantly, as although sales grew of rare-earth bonded magnetic materials, mainly for automobiles, sales of dielectric materials decreased due to the slow recovery of the market, the impact of the inventory-adjustment effects including that demand was sluggish for ICT devices like smartphones and PC, and the weak performance of a consolidated subsidiary that manufactures battery-related materials. In profits, despite the impact of the lower sales, an increase in operating profit was secured, including from the results of product price correction activities and the contribution of the improved MIX. The segment profit of the two businesses was ¥3,398mn (down 22.6%) and companywide expenses were ¥3,281mn (up 8.5%), so operating profit decreased significantly. The extent of the decline in ordinary profit also increased, because although foreign exchange gains were ¥447mn (up ¥223mn) due to the depreciation of the yen, share of profit of entities accounted for using equity method decreased to ¥673mn (down ¥1,031mn). In addition, the loss attributable to owners of parent was ¥3,581mn and an impairment loss of ¥4,869mn was recorded as an extraordinary loss, so profits declined.

Summary

2. Outlook for FY3/25

For the FY3/25 consolidated results, the Company is forecasting net sales of ¥32,000mn (up 22.0% YoY), operating profit of ¥700mn (up 497.2%), ordinary profit of ¥1,100mn (down 5.8%), and profit attributable to owners of parent of ¥600mn (a loss of ¥3,581mn in the previous period). Net sales will be greatly affected by TODA ISU CORPORATION (hereafter, TIC) being made a wholly owned subsidiary and other factors, and for operating profit as well, in addition to the effects of this consolidation, the Electronic Materials Segment and other businesses are expected to recover from the 2H. However, the outlook is for ordinary profit to decline, mainly because share of profit of entities accounted for using equity method is expected to decrease due to the change in equity and the slump in the earnings of equity-method affiliates. Assuming there are no foreign exchange gains, ordinary profit is forecast to decrease slightly. Profit attributable to owners of parent is expected to return to profitability, as the impairment loss of ¥4,869mn recorded in FY3/24 will not be recorded in this period.

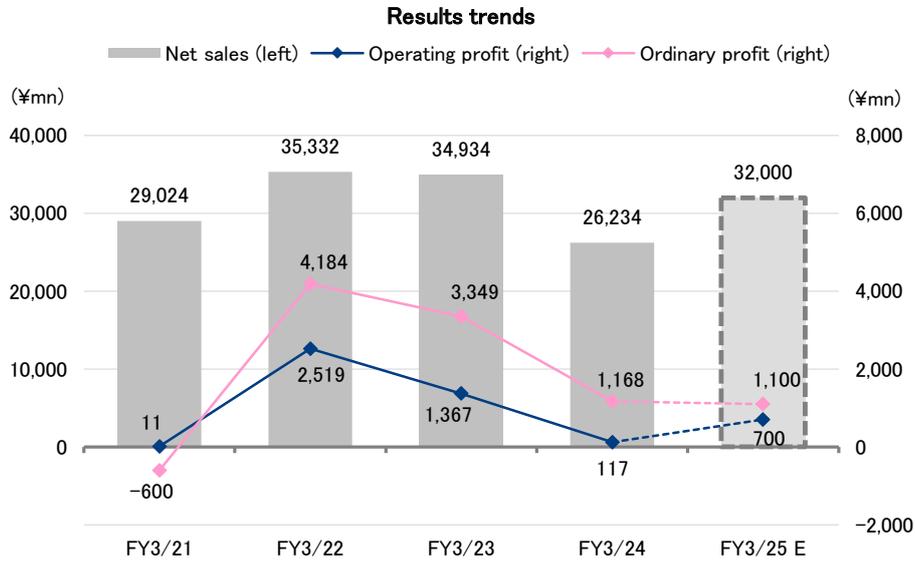
3. Medium- to-long-term growth strategy

In June 2024, the Company formulated its Medium-term Management Plan Vision2026 (FY3/25 to FY3/27) in which it describes its Purpose of “We transform the potential of fine particles into new possibilities for our world,” and in order to realize its vision of what it wants to become by FY2030, it announced a policy of strengthening its business portfolio management. Specifically, to progress business growth by accelerating selection and concentration, in the Electronic Materials Segment it is aiming to create high-added-value and generate synergies in businesses strengthened by past M&A, and in the Functional Pigments Segment to rationalize businesses and continue profitable businesses, and to quickly realize next-generation businesses for environmental-related. The plan’s specific numerical targets are net sales of ¥38.5bn and an operating margin of 5% in FY3/27, and after that, to target an operating margin at least 8% as the image it wants to become by FY3/31.

Key Points

- In FY3/24, sales declined considerably and profits deteriorated, with net sales decreasing 24.9% YoY and operating profit down 91.4% as a result of the transfer of a subsidiary and decreased earnings due to sluggish markets
- The FY3/25 forecasts are for net sales to increase 22.0% YoY and operating profit to also increase from the consolidation of an equity-method affiliated, but for ordinary profit to decrease 5.8%
- Announced Purpose of “We transform the potential of fine particles into new possibilities for our world.” Newly formulated “Vision2026”

Summary



Source: Prepared by FISCO from the Company's financial results

Company profile

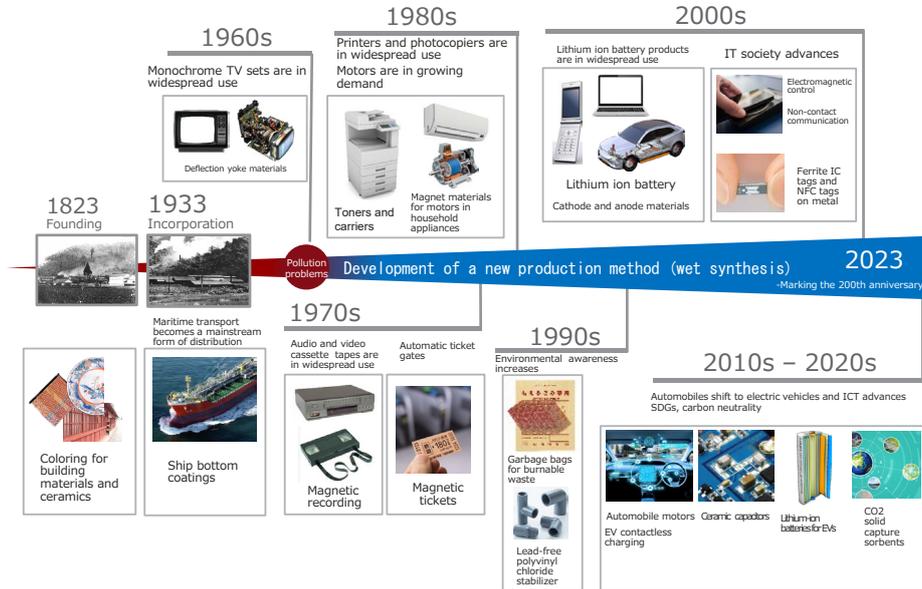
A chemical materials manufacturer that will celebrate the 200th anniversary of its founding in November 2023

1. Company profile

The Company was founded in 1823 (Bunsei Year 6) by Shozo Toda in Okayama Prefecture as Seikinsha that made a living by manufacturing of wood paints and coatings for buildings, navy blue-dyed bases, and Bengala (a compound binding oxygen and iron) used in items such as lacquerware, umbrella coloring and ceramics (red painting glazes). The Company is a long-established chemical materials manufacturer that will celebrate the 200th anniversary of its founding in 2023. The Company has expanded its business by improving its fine particle synthesis technologies cultivated with iron oxides to provide cutting-edge materials appropriate for the times, including high-purity iron oxides used in optical lens abrasives, magnetic iron oxides used in products such as audiotape and videotape, materials for toners used in copiers and printers, magnet materials used in motors and sensors for automobiles and home appliances, dielectric materials for MLCC, as well LIB materials and other applications.

Company profile

Business transitions



Source: Reprinted from the Company's "Corporate IR & Individual Investor Support Events"

The Group comprises the Company, 14 consolidated subsidiaries, 5 affiliates, and 1 other affiliated company. As of the end of FY3/24, there were 1,112 employees on a consolidated basis.

The Company's bases



Source: Reprinted from the Company's website

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Company profile

History

November 1933	TODA KOGYO CORP. established with ¥500,000 in capital in Yokogawa, Hiroshima City, for the purpose of producing and selling Bengala.
April 1951	Took over Kutsuwa Bengala Manufacturing Corp. through a merger.
November 1954	Took over Kibi Kogyo Corp. through a merger.
October 1959	Onoda Plant built in Onoda City, Yamaguchi Prefecture.
July 1969	Equipment for production of magnetic powder materials for audiotapes and videotapes added to Onoda Plant.
June 1973	Wet coloration pigment facility added to Onoda Plant.
September 1983	Shares listed on the First Section of the Tokyo Stock Exchange (now Prime Market).
December 1984	Established a plant for producing ferrite materials (Otake Plant) in Otake City, Hiroshima Prefecture.
April 1988	Built dedicated production facility for coloring materials for electronic printing in Onoda Plant.
July 1994	Established Toda Kogyo Europe GmbH in Duesseldorf, Germany.
August 1996	Established Toda America Inc. in Schaumburg, Illinois, USA (has since relocated to Battle Creek, Michigan).
January 2003	Established Toda Plastic Magnet Material (Zhejiang) Corp. in Zhejiang, China.
August 2004	Established Zhejiang Toda DMEGC Magnetic Co., Ltd. in Zhejiang, China.
October 2006	Established TODA Ferrite KOREA Co., Ltd. in Busan, South Korea (has since relocated to Anyang City, Gyeonggi-do) (in February 2022, the company name was changed to Toda Korea Seoul Co., LTD.).
April 2007	Established Toda Magnequench Magnetic Material (Tianjin) Co., Ltd. in Tianjin, China.
August 2007	Established Toda Advanced Materials Inc. in Sarnia, Ontario, Canada.
March 2008	Obtained a patent license relating to the cathode material for lithium-ion batteries from Argonne National Laboratory USA.
April 2008	Established TODA ISU CORPORATION in Wonju City, Gangwon-do, South Korea.
June 2008	Acquired the shares of TOKYO SHIKIZAI INDUSTRY CO., LTD.
February 2015	Established BASF TODA Battery Materials LLC, the joint venture company with BASF Japan Ltd., through an in-kind investment of lithium-ion battery cathode materials production facilities at Onoda Plant and Kitakyushu Plant.
April 2016	Established Toda Kogyo Asia (Thailand) Co., Ltd. in Bangkok, Thailand (has relocated to Ayutthaya). Made Toda Factory Co., Ltd. (in April 2016, company name was changed to Toda Fine Tech Inc.) a consolidated subsidiary.
April 2021	Carried out an absorption merger of Toda Pigment Corp., which had been spun off in 1997, and made it the Company's Okayama Office.
August 2021	Made Jiangmen & Partner's Magnetic Product Co., Ltd. of Guangdong, China, a consolidated subsidiary.
April 2022	Switched listing from the Tokyo Stock Exchange's First Section to the Prime Market in conjunction with the Tokyo Stock Exchange's market recategorization.
December 2022	All equity shares of Toda United Industrial (Zhejiang) Co., Ltd., a consolidated company, were transferred to equity-method affiliate Zhejiang Huayuan Pigment Co., Ltd. and Zhejiang Union Pigment Co., Ltd.
October 2023	Transferred to the Tokyo Stock Exchange (TSE) Standard Market on 20 October following an application for selection to the Standard Market.
November 2023	TODA ISU CORPORATION (South Korea), which was an equity method affiliate, was made a consolidated subsidiary with the aim of expanding soft magnetic components. Marked 200th anniversary of the Company's foundation. The brand logo is updated to a new logo that expresses its commitment to sustainable management and sustainable development.
December 2023	Made TODA ISU CORPORATION (South Korea), a wholly owned subsidiary.

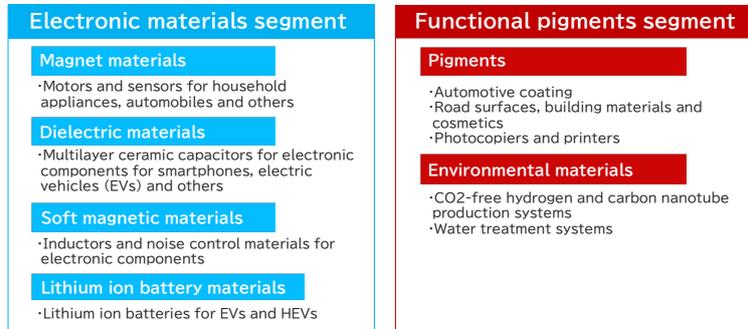
Source: Prepared by FISCO from the Company's annual securities report and press releases

2. Business description

Currently, the Group is engaged in two businesses; the Functional Pigments Segment (various pigments, environmental-related materials) and the Electronic Materials Segment (magnet materials, dielectric materials, soft magnetic materials, LIB materials and other materials).

Company profile

Domains of each segment



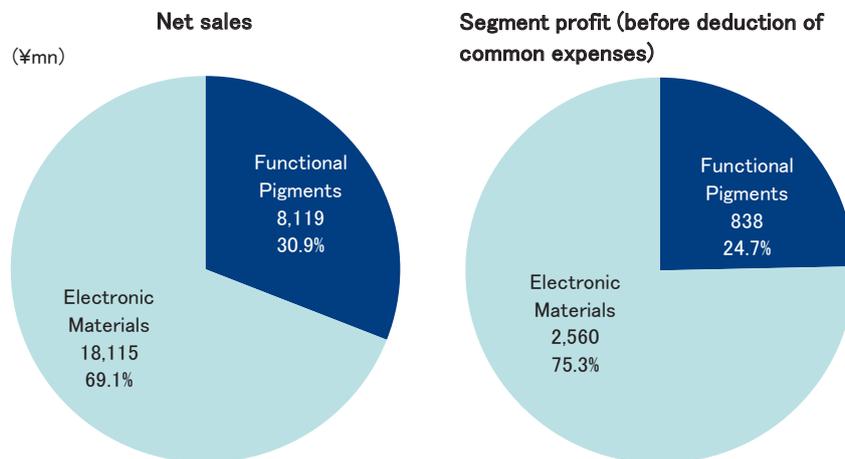
Five business fields



Source: Reprinted from the Company's CSR Report 2022

In FY3/24, the Functional Pigments Segment accounted for 30.9% of consolidated net sales and the Electronic Materials Segment accounted for 69.1%. For segment profit before deduction of common expenses, the Functional Pigments Segment had a 24.7% share and the Electronic Materials Segment a 75.3% share of the total. Also, these materials are used in five markets.

FY3/24 percentage by segment



Source: Prepared by FISCO from the Company's financial results

(1) Electronic Materials Segment

This business mainly develops products for the business fields of the automotive market and the communications and home appliances market. It positions magnet materials (ferrites, rare earth materials), dielectric materials (barium titanate), LIB materials, and soft magnetic materials as its main businesses. Overall, apparent sales fluctuate significantly due to the effect of the market prices of metals and rare metals, along with foreign exchange rate movements. Profits can also fluctuate as a result of the extent to which profits track changes in inventory, sales prices changes, as well as utilization rates.

Company profile

(a) Magnet materials

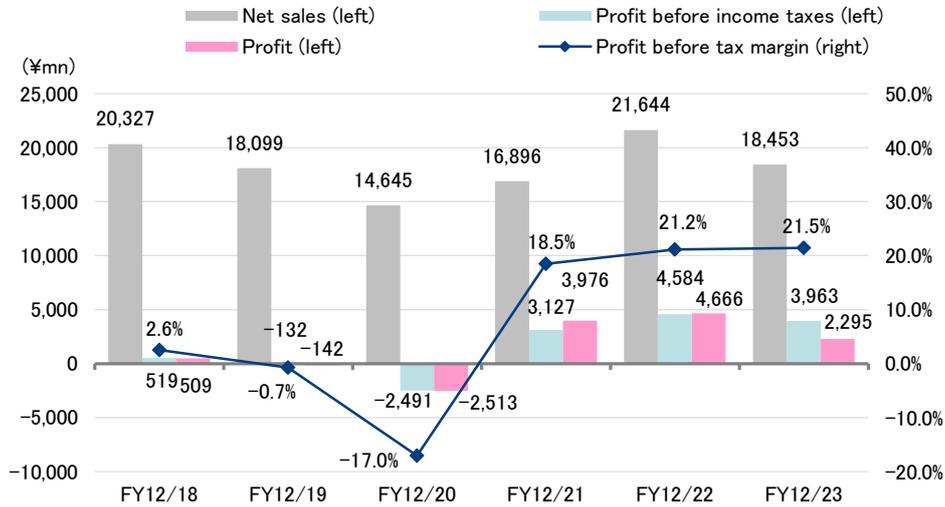
In terms of net sales by product in FY3/24, magnet materials are driving sales in this segment at ¥11.8bn (accounting for 65% of segment sales). This is centered on ferrites and rare earth magnetic compound materials (combinations of the molding materials of magnetic powder and resins) used in bonded magnets. Bonded magnets are produced from magnetic compounds highly-filled with a binder such as a polymer resin or rubber along with fine-grain powder of ferrite magnets or rare earth magnets, and the ratio of rare earth magnet compound materials has recently increased to almost half. Although they have less magnetic force than sintered magnets, they offer advantages such as ease of processing to form complex shapes, one-piece molding with metals, and ability to be made thinner, longer, and wider. These magnets comprise a diverse product range, including ferrite and rare earth and isotropic and anisotropic. Thus, the Company's materials are used in various industries. Their use is also expanding into new areas, with demand growing for air-conditioners, air filtration systems, and automotive applications. After acquiring Jiangmen & Partner's Magnetic Product Co., Ltd (Jiangmen & Partner's), which manufactures and sells injection molding bonded magnets and other products in August 2021, the business also incorporates molding of magnet materials. In profits, its operating margin is 8% and it is playing the main role in the Electronic Materials Segment.

(b) Materials for LIB use

The business that is second largest in terms of scale is the in-vehicle materials for LIB use, mainly high nickel. It handles products including cathode materials for lithium-ion batteries, precursors that are compounds before being sintered as cathode materials, and precursor raw materials. In FY3/24, its net sales were ¥3.6bn (constituting 20% of sales within its segment), the majority of which were precursor sales by a consolidated subsidiary. In response to the sudden contraction of the magnetic iron oxides market (represented by magnetic tapes), the Company harnessed the technologies of its existing business to begin research into LIB cathode materials, and it launched its lithium cobalt oxide (LiCoO₂) business in 2000. After that, the Company obtained licenses through acquisitions and other means for lithium nickel cobalt aluminum oxide (LiNiCoAlO₂), Ni(OH)₂/CoOx, spinel-type lithium manganese oxide (LiMn₂O₄), and lithium-rich nickel cobalt manganate oxide (Li-Rich NCM), and quickly commercialized LIB cathode materials using three different materials. In addition, it began construction of a manufacturing facility in Michigan, US, established a joint venture with Itochu Corporation <8001> in 2010 to manufacture precursors and cathode materials, and in 2015 established BASF TODA Battery Materials LLC (BTBM) with major European chemical company BASF in Japan for R&D, manufacture, and sales of cathode materials. It conducted R&D, production and sales of various cathodes such as NCA and NCM, and in 2017, the Company sharply expanded its high-nickel-based cathode material production facilities. The LIB materials business is operated by BTBM, a joint venture in which the Company has a 34% stake and BASF Japan a 66% stake (equity-method affiliate of the Company). In FY12/23, BTBM net sales were ¥18,453mn (down 14.7% YoY) and profit was ¥2,295mn (down 50.8%). Currently, BTBM has started supplying NCM-based cathode materials to Prime Planet Energy & Solutions, Inc. (hereafter, PPES), which is a joint venture established in April 2020 by Toyota Motor Corporation <7203> and Panasonic Holdings Corporation <6752> for the manufacture of vehicle-use square batteries. It has also increased its annual production capacity of high nickel-based cathode materials to 60,000 tons, which is equivalent to battery cell capacity of 45 GWh, and it plans to start production in the second half of 2024. BTBM is an equity-method affiliate and its equity earnings contribute to the consolidated results, so the disclosed ¥3.6bn indicates the share of precursor sales of Toda Advanced Materials Inc. (Canada), a consolidated subsidiary that handles precursors of cathode materials for lithium-ion batteries. Toda Advanced Materials' main users are for EVs, and the precursor business has been declining after peaking in December 2021, with net sales of ¥3,228mn (down 43% YoY) in FY12/23.

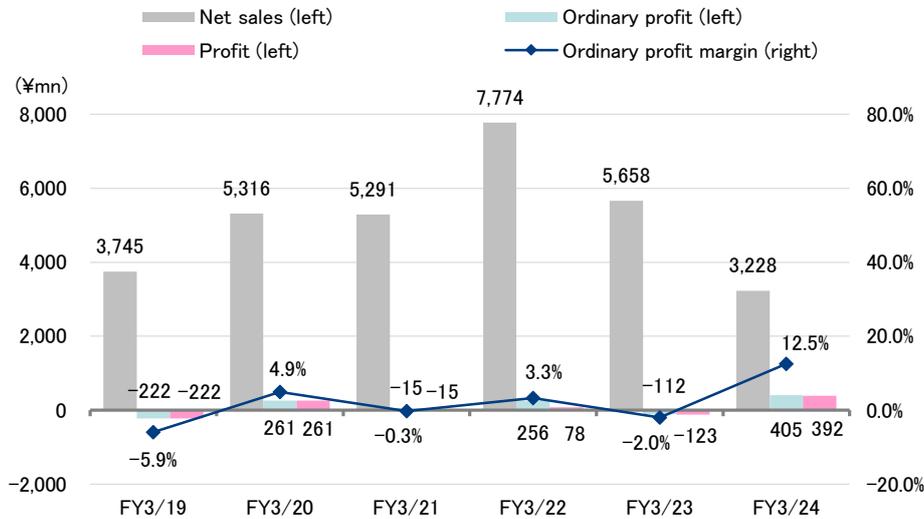
Company profile

Trends in equity-method affiliate BTBM PL



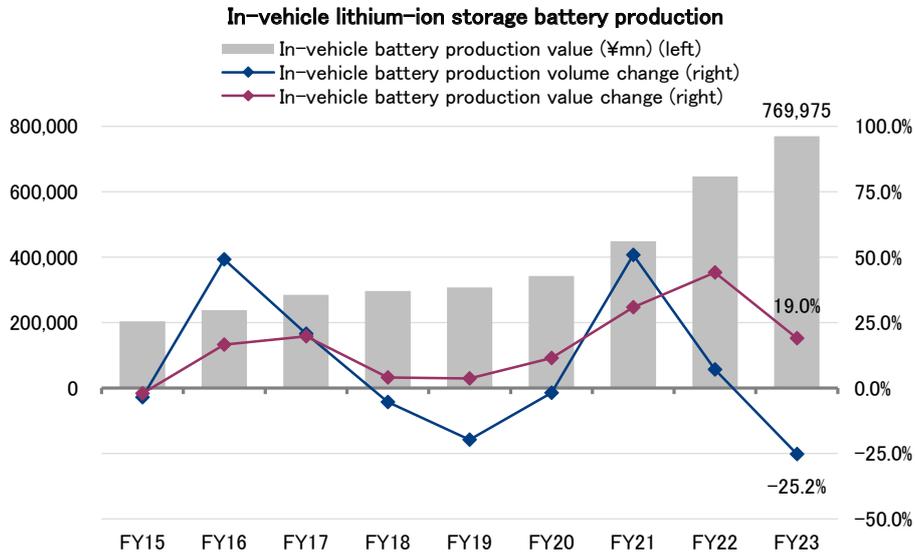
Source: Prepared by FISCO from the Company's annual securities report

Trends in Toda Advanced Materials (Canada) PL



Source: Prepared by FISCO from the Company's annual securities report

Company profile



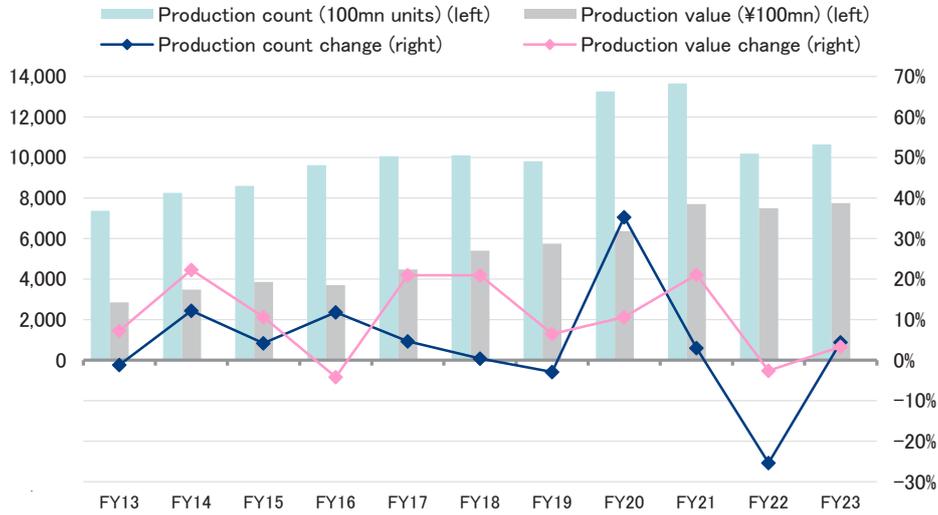
Source: Prepared by FISCO from METI's machinery statistics

(c) Dielectric materials

Future growth is expected in dielectric materials for MLCC, although sales were a modest ¥1.0bn in FY3/24 (flat YoY). Capacitors are one of the three main passive components and among these, ceramic capacitors account for almost 80% of capacitor production in Japan. Today they are used in various electronic equipment from smartphones (500 MLCC/unit) to xEV (5,000), PC/tablets (1,000), and home appliances, with domestic production totaling ¥774.6bn (up 3.3% YoY) in FY2023. Barium titanate is the main material of ceramic capacitors, with Murata Manufacturing Co., Ltd. <6981> pioneering its practical application. TAIYO YUDEN CO., LTD. <6976>, TDK Corporation <6762>, and other Japanese manufacturers followed its lead in making barium titanate a core business, and Japanese companies exclusively dominated the market until Samsung entered the business in earnest in the 2000s. The Company built a new barium titanate manufacturing facility in 2004 to enter the market in a big way, employing a distinctive manufacturing method. Traditionally, barium titanate is made by the solid-phase manufacturing method (sintering the raw material) – most companies including Murata Manufacturing produce it internally by this method. However, Nippon Chemical Industrial Co., Ltd. <4092> and Fuji Titanium Industry Co., Ltd. use the oxalate method, a production method that combines wet reaction and calcination and provides finer particles than the solid-phase method. The Company uses its proprietary wet synthesis technology, which entails a hydrothermal synthesis method to create a reaction in the raw materials at high temperature and high pressure to produce fine, even particles smaller than 100nm. The trend for ceramic capacitors is smaller, larger capacity, and higher dielectric constant. In terms of size, the share of 0603 is now the largest (previously 1005), the share of 0402 is increasing, and 0201 is now being used in specific applications such as communication modules and wearable devices. The Company supplies the materials mainly for use as co-materials for electrode layers. Production has recently slowed due to weak smartphone sales, but we expect a sharp increase in demand for ultrafine barium titanate particles going forward.

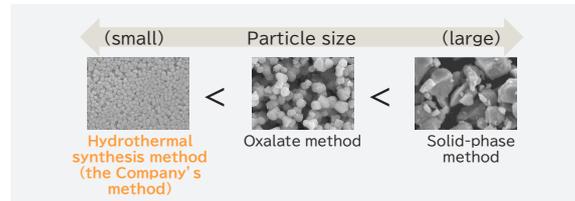
Company profile

Production of ceramic capacitors



Source: Prepared by FISCO from METI's machinery statistics

Particle size according to different manufacturing methods



Source: Reprinted from the Company's business briefing documents

(d) Soft magnetic materials

Although its net sales in FY3/24 were small at ¥500mn, TIC of South Korea has been made a wholly owned subsidiary and its business can be expected to grow in the future. The properties of soft magnetic materials include that they are easily magnetized by a comparatively small external magnetic field and almost completely demagnetized when the field is removed. In addition to ferrite, which is mainly composed of iron oxide, other magnetic materials include iron-based alloys. The Company is a one-stop provider, from magnetic materials through to compounds that have high permeability, low loss, and high saturation magnetic flux density. Their main applications are for multilayer inductors (electronic components that interact with electricity and magnetism to control current and that are used for current stabilization, voltage leveling, AC voltage changes, and other power supply applications), the RFID function in smartphones, and contactless charging, and they are used for the core portion through which the magnetic flux generated by the coil passes, and for the sheet portion that is attached to the coil.

Company profile

(2) Functional Pigments Segment

The Company develops products with its main business fields being paints, copiers/printers, and environmental markets. The Company has developed this business centered on pigments for paints and materials used in toners/carriers for copiers and printers. Pigments are one of the Company's founding businesses. Their applications have expanded in the paints and paintings market, such as construction-use coloring materials for buildings and structures, but the printer market has been matured due to factors such as the trend toward paperless offices and digitalization. Until now, the Company has worked to increase its market share and compensate for negative factors by expanding into new products such as cosmetics pigments and transparent iron oxide as well as soil and groundwater purification materials for the environmental market to secure sales. However, in order to revitalize and transform the business with a view to future development, on December 28, 2022, the Company's equity interest in Toda United was transferred to equity-method affiliate Zhejiang Huayuan Pigments Co. Ltd. (hereafter, Zhejiang Huayuan). So sales and profits decreased significantly in FY3/24 from the impact of Toda United being removed from the scope of consolidation.

■ Results trends

Results were severe in FY3/24, with net sales declining 24.9% YoY, operating profit decreasing 91.4%, and a loss attributable to owners of parent of ¥3,581mn

1. Summary of FY3/24 results

In the FY3/24 consolidated results, net sales were ¥26,234mn (down 24.9% YoY), operating profit was ¥117mn (down 91.4%), ordinary profit was ¥1,168mn (down 65.1%), and the loss attributable to owners of parent was ¥3,581mn (profit of ¥3,268mn in the previous period). Compared to the initial forecasts of May 15, 2023, net sales were down ¥5,766mn, operating profit was down ¥783mn, ordinary profit was down ¥832mn, and profit attributable to owners of parent was down ¥4,981mn. Compared to the downwardly revised forecasts of August 8, 2023, net sales were down ¥2,766mn, operating profit was down ¥683mn, ordinary profit was down ¥332mn, and profit attributable to owners of parent was down ¥4,581mn. In addition, compared to the forecasts that were downwardly revised again on November 10, 2023, net sales were down ¥266mn, operating profit was down ¥83mn, ordinary profit was down ¥132mn, and profit attributable to owners of parent was down ¥4,281mn. For profit attributable to owners of parent, extraordinary losses did not materialize in FY3/24 3Q, so the extent of the decline amount increased in 4Q.

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Results trends

For the results by business, in the Functional Pigments Segment, net sales were ¥8,119mn (down 44.9% YoY) and segment profit was ¥838mn (down 58.1%). For sales, in addition to the impact of ¥5,352mn from the transfer of the equity portion of Toda United, the recovery of demand has been slow for materials for copiers and printers, and for environmental-related, so sales trended sluggishly. Operating profit was also weak from the effect of factors such as the high prices of raw materials, in addition to the impacts of the transfer portion of ¥470mn and the lower sales. In the Electronic Materials Segment, net sales were ¥18,115mn (down 10.4%) and segment profit was ¥2,560mn (up 7.2%). Sales of rare-earth bonded magnetic materials, mainly for automobiles, were strong, but sales of dielectric materials decreased due to the slow market recovery and the effects of inventory adjustments, including the slumping demand for ICT devices such as smartphones and PCs, and also as results of a consolidated subsidiary that manufacturers battery-related materials were poor. So due to these and other factors, sales decreased significantly. In profits, although the lower sales had an impact, an increase in operating profit was still secured, including from the results of activities to correct product prices and the contribution of the improved MIX. The segment profit of the 2 businesses was ¥3,398mn (down 22.6%) and companywide expenses were ¥3,281mn (up 8.5%), so operating profit decreased significantly. The extent of the decline in ordinary profit also increased, because although foreign exchange gains were ¥447mn (up ¥223mn) due to the depreciation of the yen, share of profit of entities accounted for using equity method decreased to ¥673mn (down ¥1,031mn). In addition, the loss attributable to owners of parent was ¥3,581mn and an impairment loss of ¥4,869mn was recorded as an extraordinary loss (Functional Pigments Segment ¥2,184mn, Electronic Materials Segment ¥1,451mn, common departments ¥1,233mn), so profit decreased. By business field, results of paints were down significantly due to the transfer.

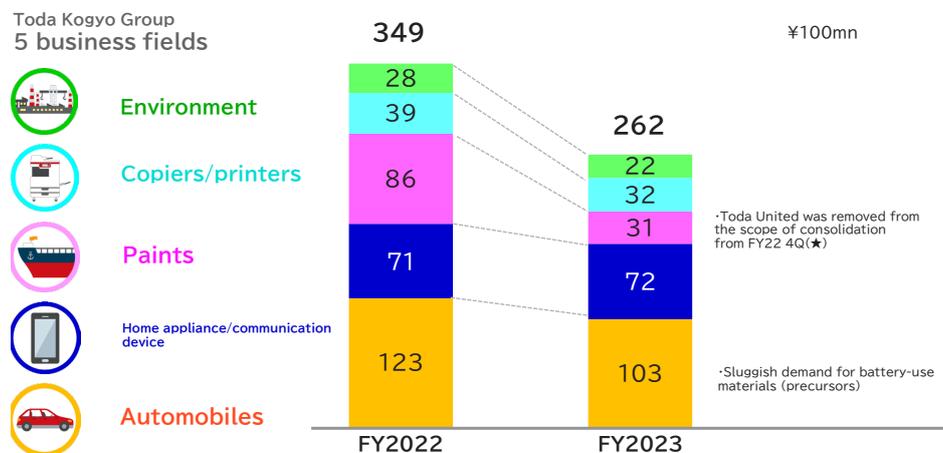
Overview of results

(¥mn)

	FY3/23			FY3/24 initial forecasts			FY3/24 revised forecasts (August 8, 2023)			FY3/24 re-revised forecasts (November 10, 2023)			FY3/24		
	Results	% of net sales	YoY change	Company forecast	% of net sales	YoY change	Company forecast	% of net sales	YoY change	Company forecast	% of net sales	YoY change	Results	% of net sales	YoY change
Net sales	34,934	100.0%	-1.1%	32,000	100.0%	-8.4%	29,000	100.0%	-17.0%	26,500	100.0%	-24.1%	26,234	100.0%	-24.9%
Operating profit	1,367	3.9%	-45.7%	900	2.8%	-34.2%	800	2.8%	-41.5%	200	0.8%	-85.4%	117	0.4%	-91.4%
Ordinary profit	3,349	9.6%	-20.0%	2,000	6.3%	-40.3%	1,500	5.2%	-55.2%	1,300	4.9%	-61.2%	1,168	4.5%	-65.1%
Profit attributable to owners of parent	3,268	9.4%	4.9%	1,400	4.4%	-57.2%	1,000	3.4%	-69.4%	700	2.6%	-78.6%	-3,581	-13.7%	-

Source: Prepared by FISCO from the Company's financial results

YoY comparison of FY3/24 net sales by final use



(★)The FY22 net sales of Toda United Industry (Zhejiang) Co., Ltd. recorded on the consolidated statement of income were ¥5.3bn

Source: Reprinted from the Company's business briefing materials

Results trends

2. Electronic Materials Segment

In the Electronic Materials Segment, net sales were ¥18,115mn (down 10.4% YoY), and segment operating profit before deductions of companywide expenses was ¥2,560mn (up 7.2%). In sales, sales grew of magnetic materials to ¥11.8bn (up ¥300mn YoY), and of rare-earth bonded magnetic materials for automobile-use, which absorbed the sluggish sales for home appliances and other uses, so higher sales were secured. This business' percentage of its segment sales was 65%, up 9 percentage points YoY. Its profits were higher than the values of this segment as a whole and its operating margin after deductions of common expenses was 8%, and it is driving the profits of this business segment as well. Sales of LIB materials were ¥3.6bn (down ¥2.2bn YoY). The effects became prolonged of the slump at a cathode materials manufacturer that is a customer of Toda Advanced Materials (Canada), which manufactures battery-related materials, while results were also impacted by the deterioration of market conditions. In dielectric materials, net sales were ¥1.0bn (basically unchanged YoY), and growth was sluggish due to the delay in the market recovery and inventory adjustments caused by the decline in demand for ICT devices, such as smartphones and PCs. In profits, in addition to the sluggish sales and the deterioration of market conditions, the high prices of raw materials and energy had an impact, so the operating margin after deductions of common expenses declined 12% and the operating loss was ¥120mn. In soft magnetic materials, net sales were ¥500mn, the operating margin after deductions of common expenses was -60%, and the operating loss was ¥300mn. The plan is for earnings in this business to increase significantly from FY3/25 onwards on TIC being made a subsidiary, but net sales in FY3/24 were small because they were on a stand-alone basis, while operating profit decreased significantly due to the upfront investment.

3. Functional Pigments Segment

In the Functional Pigments Segment, net sales were ¥8,119mn (down 44.9% YoY) and segment profit before deductions of common expenses was ¥838mn (down 58.1%). This included the impact of Toda United being removed from the scope of consolidation (causing net sales to decline ¥5,352mn and operating profit to decrease ¥470mn), but even when excluding this factor, sales declined 13.4% and profit 45.2%. Breaking this down, paints-related declined from ¥8.6bn to ¥3.1bn (down 64%), but this included ¥5.3bn from the impact of Toda United and the actual decrease was only 2% or ¥200mn. On the other hand, sales for copiers and printers were ¥3.2 billion (down 18% YoY), affected by sluggish sales in China and other areas and the shift to paperless operations. In profits, the impact of Toda United was again large, and in addition to the lower sales, the price revisions could not keep up with the effects of the rising prices of raw materials and energy, so even after excluding the impact of Toda United, the profit margin declined and profits decreased significantly.

The improvement to the financial condition has paused due to the sluggish earnings, and strengthening the financial structure continues to be an issue

4. Financial condition

The Company had recorded net losses six times over the past 10 fiscal years up until FY3/22, and its equity ratio had fallen from 46.5% at the end of FY3/15 to 19.5% at the end of FY3/21, but in FY3/22 the Company posted a record-high net profit, helping the equity ratio to improve to 24.2% at the end of FY3/22, and improvement moved ahead to 30.5% in FY3/23. However, in FY3/24 it was impacted by the loss attributable to owners of parent ¥3,581mn and dropped again to 25.8%.

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Results trends

Consolidated balance sheet and key management indicators

	(¥mn)			
	FY3/22-end	FY3/23-end	FY3/24-end	Change
Current assets	29,381	28,465	30,309	1,844
Non-current assets	21,910	23,550	23,404	-146
Total assets	51,292	52,016	53,714	1,698
Current liabilities	20,276	17,604	21,629	4,025
Non-current liabilities	17,056	17,852	17,559	-293
Total liabilities	37,333	35,456	39,189	3,733
Net assets	13,958	16,559	14,525	-2,034
(Soundness)				
Current ratio	144.9%	161.7%	140.1%	
Equity ratio	24.2%	30.5%	25.8%	

Source: Prepared by FISCO from the Company's financial results

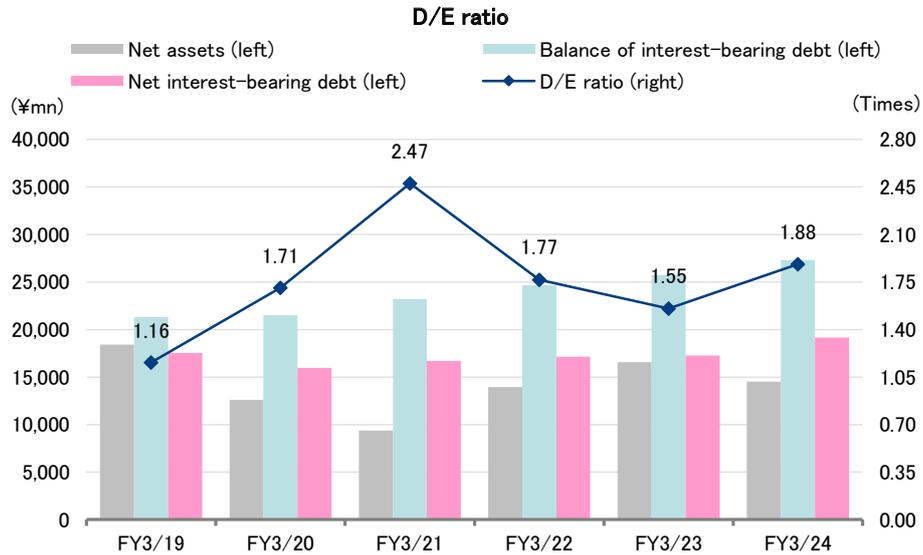
With regard to cash flow, although the Company has been curtailing investment as much as possible, from FY3/23 to FY3/24, it conducted upfront investment such as acquisitions of profitable fixed assets, and cash flow from investing activities that was not compensated for by loan collections and other factors increased. Conversely, cash flows from operating activities did not increase due to the severe earnings situation, and cash flow used in operating activities at the end of the period was ¥2,074mn. Also, interest-bearing debt increased by ¥1,586mn on the end of the previous period to ¥27,315mn, while the D/E ratio worsened to 1.88, which shows that it will take time to improve the balance sheet as a whole.

Cash flow statement

	(¥mn)				
	FY3/20	FY3/21	FY3/22	FY3/23	FY3/24
Cash flows from investing activities	-239	-1,219	-1,138	-375	-1,429
Cash flows from financing activities	-120	1,416	913	187	1,184
Cash and cash equivalents at end of period	5,542	6,492	7,527	8,476	7,943
Free cash flow	2,020	-607	-235	458	-2,074
Capital investment	1,192	961	722	1,753	1,680
Depreciation	1,725	1,043	687	685	802
Research and development expenses	1,240	1,274	1,258	1,315	1,514

Source: Prepared by FISCO from the Company's financial results

Results trends



Source: Prepared by FISCO from the Company's financial results

■ Outlook

For FY3/25, is forecasting that net sales will increase 22.0% YoY and operating profit will rise 497.2% from TIC being made a subsidiary, but that ordinary profit will decrease 5.8%

● Outlook for FY3/25

For the FY3/25 consolidated results, the Company is forecasting net sales of ¥32,000mn (up 22.0% YoY), operating profit of ¥700mn (up 497.2%), ordinary profit of ¥1,100mn (down 5.8%), and profit attributable to owners of parent of ¥600mn (a loss of ¥3,581mn in the previous period). Net sales will grow greatly due to the consolidation of TIC (simply calculated, net sales will increase ¥5.5bn), but sales are still forecast to increase slightly even when excluding the effect of this. Operating profit is forecast to improve ¥583mn, including from the contribution of TIC and also the decrease in depreciation due to the impairment loss recorded in the previous period. However, ordinary profit is forecast to decrease as growth at the equity-method affiliates other than TIC is expected to be slow, and also as no foreign exchange gains are anticipated. Profit attributable to owners of the parent is expected to return to profitability based on the assumption that the large extraordinary losses, such as the impairment loss, recorded in FY3/24 will not be recorded in this period.

Outlook

FY3/24 results outlook

	FY3/24			FY3/25		
	Results	% of net sales	YoY change	Forecast	% of net sales	YoY change
Net sales	26,234	100.0%	-24.9%	32,000	100.0%	22.0%
Operating profit	117	0.4%	-91.4%	700	2.2%	497.2%
Ordinary profit	1,168	4.5%	-65.1%	1,100	3.4%	-5.8%
Profit attributable to owners of parent	-3,581	-13.7%	-	600	1.9%	-

(¥mn)

Source: Prepared by FISCO from the Company's financial results

For the FY3/25 results by segment, in the Electronic Materials Segment, the forecasts are net sales of ¥23.5bn (up 29.7% YoY) and operating profit after deducting common expenses of ¥900mn (up 12.5%, or ¥100mn). Within this business, the soft magnetic materials department will be affected by the consolidation of TIC (simply calculated, net sales will increase by ¥5.5bn), and if excluding this amount, net sales will be ¥18.5bn (up 2% YoY). In profits, the forecast contribution to operating profit of TIC has not been disclosed, but when viewed overall considering the factors in the existing businesses, such as the small sales increases and the higher expenses, operating profit may decrease. The Company does not disclose net sales for each main product, but those of magnetic materials, which is the largest department, are forecast to increase, as sales can be expected to continue to grow of rare-earth bonded magnetic materials for automobiles, while sales for consumer applications, which had been slumping, are also forecast to recover in the 2H. On the other hand, the outlook for LIB-related continues to be sluggish, and a decline in sales seems inevitable. For dielectric materials, although the recovery of smartphones has been slow, sales are expected to change direction and increase due to their growth for automobile and other applications. For the Functional Pigments Segment, the forecasts are for net sales of ¥8.5bn (up 4.7% YoY) and an operating margin of -2% (improving the operating loss by ¥500mn). Sales for toners are expected to recover somewhat from bottoming-out, as progress has been with inventory adjustments, but growth will be limited. In profits, the outlook is for the extent of the loss to decrease from the effects of the rationalization of businesses and the continuity of profitable businesses.

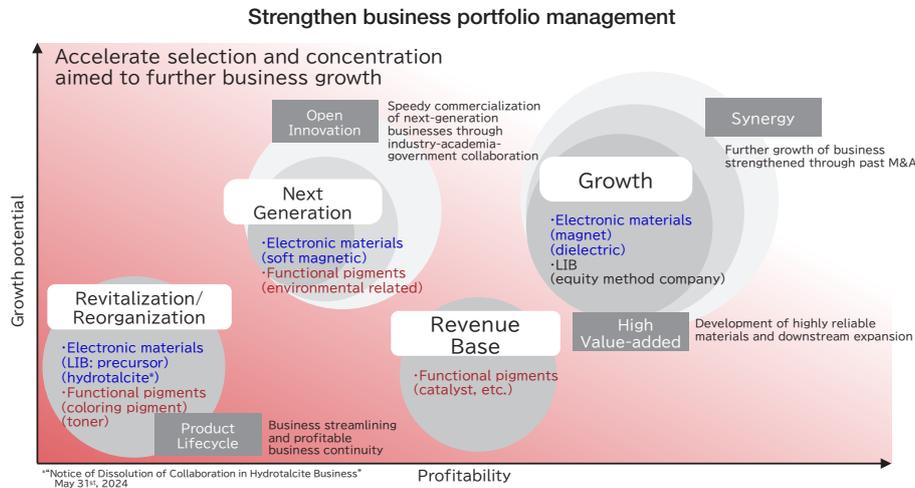
■ Medium- to-long-term growth strategy

Has newly formulated Vision2026 to achieve its Purpose of “We transform the potential of fine particles into new possibilities for our world.”

1. Medium-term Management Plan Vision2026

The Company has formulated its Medium-term Management Plan Vision2026 as its business strategy, aiming for high value-added and synergy effects in the Electronic Materials Segment, the continuation of profitable businesses in the Functional Pigments Segment, and the speedy commercialization of next-generation businesses through industry-academia-government collaborations. The plan is in order to learn from its 200-year history, to return to its starting point to open up the future, and to progress business growth by accelerating selection and concentration to realize the image of what it wants to become by FY2030. The plan's targets for FY3/27 are net sales of ¥38.5bn and an operating margin of 5%.

Medium- to-long-term growth strategy



Source: Reprinted from the Company's business briefing materials

“Vision2026” Business Plan

We will strengthen our business portfolio management to realize our Vision for fiscal 2030. (Billions of yen)



Source: Reprinted from the Company's business briefing materials

With regards to the recently announced Vision2026, the Company is aiming to aim to steadily expand the results of the Electronic Materials Segment, to return the Functional Pigments Segment to profitability through selection and concentration, and to commercialize new businesses by FY2030. So it is a medium-term management plan to solidify the footholds to realize the vision of what it wants to become by FY2030, and as a whole, it can be said to be an achievable plan.

2. Electronic Materials Segment

The Electronic Materials Segment will play the central role in the Company becoming its vision by FY2030, and in comparison to the FY3/24 results of net sales of ¥18.1bn and operating profit of ¥800mn, for FY3/27, which is Vision2026's final fiscal year, it is targeting net sales of ¥28.5bn and operating profit of ¥1.9bn.

Medium- to-long-term growth strategy

(1) Magnet Materials Business

In addition to conventional applications, the Magnetic Materials Business is aiming to secure heat resistance suitable for automotive applications and is working to develop materials and strengthen the supply chain. Bonded magnetic materials, which will become the core product, have applications such as for magnet rolls for copiers and printers, and fan motors for air conditioners, while bonded rare-earth magnets, especially those for automobiles, are expected to grow in the future. As EVs are becoming more and more popular, neodymium magnetics, which have high magnetic force, are being used for the rotor in the motor core of EVs, so sales of the Company's rare-earth bonded magnetic materials for use in the electric water pumps (EWP) of EVs are expected to grow. Unlike internal combustion engines, EVs require efficient thermal management to maintain system performance, including management of the battery temperature, motor cooling, and hot air, and regulation of heat from the intake intercooler, and the EWP plays a central role for this. Mechanical pumps cannot be used in EVs as they lack a power source for driving, unlike in engine vehicles. Also, the EWP can control the flow of cooling water as needed, regardless of motor speed. Bonded magnets are often used for EWPs because of their light weight and ability to be molded with shaft inserts, but there are increasing demands for those with high-temperature compatibility and environmental resistance, and high magnetic properties, so demand for highly functional rare-earth bonded magnetic materials is increasing. Rare-earth bonded magnetic materials sales have already risen to constitute 40% of the Company's total bonded magnetic materials sales, and this percentage is likely to further increase. In 2022, it reviewed the design of ferrite PPS compound, which is one type of bonded magnetic material, and developed a new product. Specifically, it developed a PPS compound that significantly reduces the amount of corrosive gases generated during heating, which in turn reduces damage to molds during molding, thereby extending the lives of molds and reducing the frequency of maintenance. Sales of this product are expected to grow for automobile-use motors and sensors, and the Company is forecasting an average annual growth rate of 12.5% from 2022 to 2030. Sales growth is expected to accelerate in the future as Japanese pump makers increase their adoption for EVs due to the full-scale expansion of EVs in Japan. Also, since they can also be used for air conditioner components as well as for automobiles, the Company is also focusing on developing their applications. Through the acquisition of Jiangmen & Partner's Co., Ltd., a magnetic molding business company, it has established an integrated production system from materials through to parts processing, and this is expected to improve the profitability of the magnetic materials business by generating synergies. Specifically, compared to the FY3/24 results of net sales of ¥11.8bn and an operating margin of 8%, for FY3/27 it is targeting net sales of ¥16.0bn and an operating margin of 10%.

Medium- to-long-term growth strategy

(2) Dielectric Materials Business

In the Dielectric Materials Business, the Company is pursuing finer microparticulation to respond to further miniaturization of MLCCs, while aiming to reduce costs and expand their use as cutting-edge materials. Currently, with the spread of environmentally friendly vehicles and automatic driving support, the number of MLCCs used per vehicle has increased from 1,000 to 3,000 units per vehicle to 3,000 to 6,000 units per vehicle. In addition, the number of units used in every field, including for powertrains, xEV, vehicle bodies, driving safety, and infotainment systems, are expected to increase in the future. The internal structure of MLCC comprises stacks of barium titanate (BaTiO₃; TB) dielectric layers and nickel electrode layers. Both dielectric and electrode layers must be thin and the number of layers increased to achieve high performance. This requires nanoparticle component materials. TB nanoparticles must be used as a co-material to strengthen the mechanical bond between the internal electrode layer (metal) and dielectric layer. The mechanical strength of the electrode layer must be enhanced to prevent it from splitting or cracking during the MLCC manufacturing process as well as ensuring that the MLCC does not lose its electrical properties or break down. The co-material also plays the important role of providing a consistent electrical field between the electrode and dielectric layer to improve the electric polarization of the dielectric layer. Although production value is modest, we think the co-material offers substantial added value. Further miniaturization of MLCCs is expected, and thus thinner electrode layers will be required going forward amid the trend for higher capacity MLCCs, which will require nickel particles smaller than 100nm and co-material particles smaller than 20nm. The Company plans to begin supplying TB nanoparticles as a dispersing element in addition to supplying the co-material. Dispersing elements prevent dielectric particles from clumping together, to form a consistent dielectric layer. Currently, dispersions are shipped to users in a dry state and the users add dispersants to the dispersions to use them, but the Company is developing dispersions that can be supplied to the users in a wet state, and the value added will be higher if it can ship them in this state. The current situation is that the inventory adjustments have become protracted due to stagnant demand for smartphones and other factors, resulting in deteriorating earnings for MLCC companies, and the Company itself was forced to post lower operating profit in FY3/24 in a situation in which sales are remaining flat. However, signs of demand recovering can once again be seen as progress is being made with the inventory adjustments. The Company is targeting net sales of ¥2.0bn and an operating margin of 8% in FY3/27 by progressing the creation of high-added-value in line with the needs for miniaturization. Moreover, it is targeting further improving profitability to an operating margin of 18% by 2030, which is when EVs and other such vehicles are expected to become more widely in use.

Medium- to-long-term growth strategy

(3) Materials for LIB use

The main driver of this business is the consolidated sales of Toda Advanced Materials, which is in the scope of consolidation and handles precursors of cathode materials, and the mainstay is equity-method affiliate BTBM. Therefore, the current Vision2026 does not disclose specific net sales or profit margin targets, but the aim is to expand this business with its business partner BASF to meet the growing global demand. Currently, the main cathode materials provided by BTBM are high nickel-based, and it is expected that luxury cars will continue to use lithium nickel cobalt aluminate (Hi-Nickel NCA) for aspects such as cruising range. It has started supplying NCM-based cathode materials to PPES, and it plans to increase its annual production capacity of high nickel-based cathode materials to 60,000 tons, which is equivalent to battery cell capacity of 45 GWh, and to start production in the second half of 2024. BTBM has been most supplying materials for conventional NCA (cylindrical batteries) cathodes, (the top supplier in Japan is Sumitomo Metal Mining Co., Ltd. <5713>, the second is BTBM), and the materials supplied to PPES are for NCM (square/laminated) cathodes. In Japan, Nichia Corporation is the supplier, but the market is expected to expand along with Toyota Motor Corporation's domestic EV strategy. Toda Advanced Materials supplies its customers with cathode materials for EVs, but currently it continues to struggle due to reaching the end of the model period, and the outlook for FY3/25 is once again for sluggish earnings. As part of its efforts to deal with this, it is also working on the next generation models, but the results of these efforts are not expected to appear until FY3/26 or beyond. On the other hand, Toyota Motor Corporation has announced a plan to invest a total of \$13.9bn in a battery plant in the U.S., and its annual production is expected to reach 30 GWh or more by 2030. The Company may also be able to participate in this as a new user, and we await the outcome. However, there is a movement worldwide to rethink EVs, and in fact, in June 2024 Panasonic Holdings partially revised its plan for its EV battery business to exceed ¥3 trillion by FY3/31, citing lower operating rates at domestic plants and other factors, and there are also other movements with undetermined timeframes. Therefore, although the in-vehicle LIB-related business is expected to grow over the long term, there may be a situation of earnings stagnating for a while.

Medium- to-long-term growth strategy

So far, the Company has been manufacturing LIB materials for in-vehicle applications (especially for high-powered EVs) and plans to continue in this field. However, given concerns about the procurement of lithium resources and cost issues, it is also developing sodium-ion batteries, which are inexpensive and have no resource constraints, to be used mainly as stationary power supply. Specifically, on March 25, 2024, Tottori University and the Company announced the joint development of an innovative sodium ion battery (SIB) using iron oxide (sodium ferrite) as the cathode and anode. The Company has discovered that sodium ferrite (NaFeO_2), which is a type of iron oxide it independently developed as a material that captures CO_2 in exhaust gas, has excellent characteristics as an SIB anode. Iron oxide is widely used as a harmless and abundant material. SIB is said to be a next-generation storage battery with advantages in terms of resources and price because it uses nearly inexhaustible and cheaply available Na, in contrast to Li, which is unevenly distributed and has risks in terms of supply shortages and price hikes. It was previously reported that α -type sodium ferrite ($\alpha\text{-NaFeO}_2$) can function as a cathode, but the Company applied its proprietary iron oxide, $\beta\text{-NaFeO}_2$, to an anode, and it discovered, for the first time in the world, that it offers excellent charge-discharge performance. In addition, the β -type sodium ferrite ($\beta\text{-NaFeO}_2$), which is polymorphic, can be applied to the anode as well, and it successfully demonstrated for the first time in the world a reversible charge-discharge process using the same type of iron oxide for both the anode and cathode. Currently, SIBs are expected to be used as inexpensive storage batteries for large stationary power supply, and overseas, China's CATL is promoting their practical use as power sources for EVs, which is attracting even more attention. However, the same as in the case of LiB, they are carbon-based materials for the anode, and new anode materials that can absorb more sodium are required to achieve higher energy density. Previously, Fe_2O_3 was a candidate because of its very large Na storage and release capacity (theoretical capacity: $1,007 \text{ mAhg}^{-1}$), but the electrode had a charge-discharge degradation issue in which Fe_2O_3 agglomerates and the durability of the electrode becomes low. Recently, the Company has confirmed that combining with antimony (Sb) improves the current collectivity and suppresses the aggregation of Fe_2O_3 particles, thereby improving the cycle life of the electrode. Furthermore, in order to solve the problem of using iron oxide alone without using Sb, which is a kind of rare metal, NaFeO_2 was applied as a SIB anode and it was newly found that charge-discharge is possible. In addition, it was discovered that using iron oxide alone can overcome the short charge-discharge cycle life that was an issue when only Fe_2O_3 was used for the anode. In addition, the Company used the same materials for the charge-discharge operation with different sodium absorption and release mechanisms for the anode and cathode, and for the first time in the world, it successfully charged and discharged in a reversible manner a full cell consisting of a NaFeO_2 anode and a NaFeO_2 cathode. It confirmed that similar charge-discharge characteristics can also be obtained by replacing the anode with the β -type NaFeO_2 . Iron oxide materials such as Fe_2O_3 have been studied as anode materials not only for SIB but also for LiB, and it is significant that the use of NaFeO_2 , an iron oxide, can effectively draw out their high capacity without compounding them with other metals.

(4) Soft magnetic materials

In the soft magnetic materials business, the wholly owned subsidiary TIC will be consolidated from FY3/25, so in FY3/25 in the Electronic Materials Segment, this business will have the second largest sales after the magnetic business, and it is targeting net sales of ¥7.0bn and an operating margin of 3% in FY3/27. Moreover, as the image it wants to become by FY3/31, it is targeting net sales of more than ¥10.0bn and an operating margin of 7%.

Medium- to-long-term growth strategy

Recently, the operating profit of TIC declined in FY12/23, but it is aiming to increase sales and improve profitability from sales growth and synergies, mainly by developing inductors. Specifically, in addition to soft magnetic ferrite powder for inductors, it will meet the increasing demand for inductors, such as soft magnetic metal powder for power inductors. Furthermore, it is aiming to be a one-stop provider of soft magnetic compounds for inductors by integrating material and composite technologies. In addition, the electromagnetic noise problem has become a major issue due to the increase in the number of products equipped with electronic components in response to the electrification of automobiles. So it is strengthening sales of molded products, including noise control materials, thick and ultra-large flexible ferrite plate used for EVs' contactless charging, and molded products such as flexible ferrite sheets and tape for noise suppression. Its other products include epoxy magnetic adhesive with excellent magnetic permeability made by mixing soft ferrite powder with epoxy resin, and sub-micron sized Fe-based soft magnetic metal powder with high sphericity and uniform particle size distribution that enables the realization of electronic components like high-performance inductors, and sales are expected to increase greatly in the future.

3. Functional Pigments Segment

The market for functional pigments is maturing, and based on Vision2026, the Company is aiming to rationalize this business and continue profitable operations, as well as to quickly realize next-generation businesses through industry-academia-government collaborations, with a focus on environmental-related. The earnings target for this business in FY3/24 is an operating loss of ¥700mn after deducting shared expenses, but it intends to achieve the break-even point for operating profit in FY3/27.

Specifically, it posted an impairment loss of ¥2,184mn as an extraordinary loss in FY3/24. It took measures such as for depreciation and high-cost inventory, and the loss is expected to shrink in stages as net sales gradually recover.

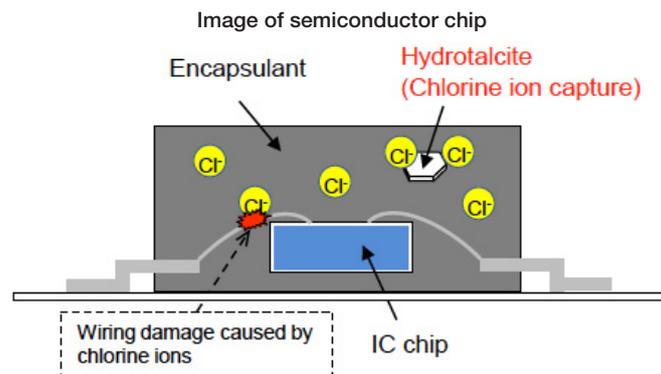
(1) Pigment Business

In FY3/24, sales for copiers and printers, which have the largest sales scale, were ¥3.2bn, partly due to the slump in China. Basically, the wave of shifting to paperless cannot be avoided, and although sales have been confirmed to have bottomed-out, no significant expansion is expected, so it seems that profitability will be secured through highly profitable color products and other products. It appears sales of paint applications decreased slightly when excluding the ¥3.1bn impact in FY3/24 of the transfer of Toda United. This department seems to be responding to trends with an emphasis on profitability, such as through transparent paints for automobiles and products for cosmetics (under development).

Medium- to-long-term growth strategy

(2) Environmental-related materials

The Company has supplied products contributing to the formation of a recycling-oriented society such as iron oxide that has catalytic activity to reduce the release of hazardous substances upon incineration, as well as iron oxide that has the function of purifying soil and groundwater. Recently, FY3/24 net sales for the environmental-related market were ¥2.2bn, but the core business is the hydrotalcite business, which is part of the Electronic Materials Segment. Hydrotalcite is generally represented by Mg/Al carbonate-type layered double hydroxide (LDH: Layered Double Hydroxide), which adsorbs anions such as chloride ion (Cl-) by ion exchange with carbonate ion (CO₃²⁻) between layers, and also the carbonate ions (CO₃²⁻) contained in the material absorb infrared rays, enabling it to store and retain heat. Therefore, it is used as a material for lead-free polyvinyl chloride stabilizers and as a heat retaining agent for agricultural polyolefin film, and the Company has been providing it via its wet synthesis technology in a variety of forms tailored to the specific application. However, demand for it has not grown, including due to the novel coronavirus pandemic and the recent real estate recession in China, and in addition, as prices have fallen due to the proliferation of manufacturers in China. In May 2024, the Company decided to dissolve its partnership agreement with SAKAI CHEMICAL INDUSTRY CO. LTD. However, the business has the potential to make a comeback with different demand than before. Specifically, demand is expected as a chlorine scavenger for semiconductor encapsulants due to its high chlorine scavenging performance and fine particle design compliant with finer wiring. In particular, needs are high for chlorine scavengers to reduce the risk of wire breakage due to the miniaturization of semiconductors.



Source: Reprinted from the Company's "Hydrotalcite" material

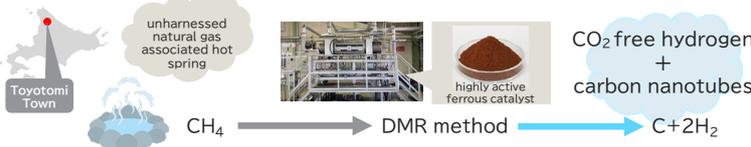
In other initiatives, the Company is promoting the commercialization of next-generation businesses through industry-academia-government collaborations. Specifically, in order to achieve carbon neutrality, it is promoting the development of a CO₂-free hydrogen production process and system using the direct methane reforming method (DMR method) in cooperation with AIR WATER INC. <4088> through a project commissioned by the New Energy and Industrial Technology Development Organization (NEDO). In August 2023, they installed a commercial-scale hydrogen production plant that uses the DMR method in Toyotomi Town, Hokkaido, to produce high-purity hydrogen without directly emitting CO₂ by using the natural gas occurring at hot springs, which is mainly composed of methane. At the same time, they are supplying the hydrogen produced to neighboring customers to promote the construction of a hydrogen supply chain that is based on local production for local consumption. They are also developing a market for the carbon byproduct as highly conductive multilayer carbon nanotubes (CNT). By FY2025, they will have established commercial-scale hydrogen and CNT production technologies using the DMR process for the unused natural gas produced in Toyotomi Town. In conjunction with this, Air Water will establish a hydrogen storage, transportation, and supply system and build a hydrogen supply chain in the region, and the Company will progress the creation of high value-added for the CNT powder. They intend to search for applications for CNT and to evaluate its performance at customers, aiming for the social implementation of the entire system at an early stage.

Medium- to-long-term growth strategy

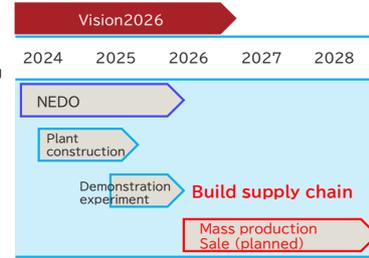
Business strategy “Environmental-related Materials (development)” initiatives

Build Supply Chains of Local CO₂ Free Hydrogen Utilized Unharnessed Natural Gas

Produce inexpensive, high-purity carbon-neutral hydrogen (99.99% or higher) based on DMR method and build local CO₂ free hydrogen supply chain by effectively utilizing unharnessed natural gas associated hot spring in Toyotomi Town.



Source: Reprinted from the Medium-term Management Plan

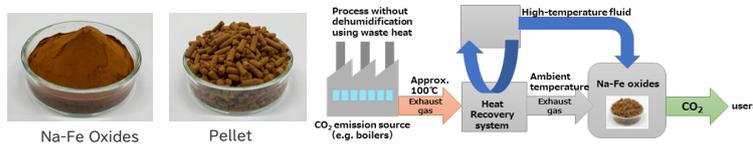


The Company is also researching CO₂ capture using sodium ferrite with Associate Professor Ikuo Yanase of Saitama University. It is a promising material for contributing to carbon neutrality, being a solid that can be used repeatedly that captures CO₂ in exhaust gas and releases CO₂ heated to around 100°C. In July 2022, the Company, Air Water, and Saitama University jointly submitted an application with the project title “Development of innovative CO₂ separation and recovery technology using Na-Fe oxides” to the NEDO Green Innovation Fund/ Development of Technology for CO₂ Separation and Recovery, etc. project, which was accepted in July 2022. Possible uses of the separated and captured CO₂ include key materials using H₂ and CO₂, fuel, and concrete compound.

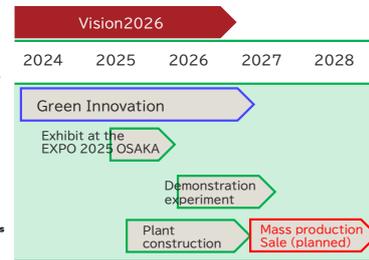
Business strategy “Environmental-related Materials (development)” initiatives

Develop Innovative Technology of CO₂ Separation and Recovery Using Na-Fe Oxides

Promote the development of CO₂ solid capture sorbent that absorbs CO₂ contained in the combustion exhaust gas emitted from factory boiler facilities at room temperature and separates and recovers CO₂ through heating the gas to around 100 °C.



Source: Reprinted from the Medium-term Management Plan



Overall, the industry-academia-government collaborations are not expected to reach the stage of mass production under Vision2026 and will take time to contribute to earnings. However, their targets for FY2030 are net sales of ¥1.0bn and operating profit of ¥100mn, and there are high expectations for the Company’s initiatives to realize a decarbonized, recycling-based society.

■ Shareholder return policy

Transferred to the TSE Standard Market. Aiming for the early resumption of dividends after considering how consolidated results are trending

On September 13, 2023, in a press release titled “Progress Based on the Plan for Compliance with the Listing Maintenance Criteria for the Prime Market (Modified) and Status of Application for Selection for the Standard Market and Compliance,” the Company announced that it had chosen to transfer from the TSE Prime Market to the Standard Market, as it had decided that it should not take risks in order to ensure a more secure environment for its shareholders to hold, buy and sell its shares. There has been no change to its intention of increasing corporate value by promoting the Medium-term Management Plan.

Since the Company paid a ¥40 dividend in FY3/19, it has not paid a dividend again, partly due to lackluster operating results. In FY3/25, the Company is forecasting a return to profitability, albeit at a low level, and therefore expects to continue not paying a dividend. The Company aims to quickly resume dividend payments while retaining the necessary internal reserves to develop business for the future and strengthen its management structure, but it will take more time for dividends to be reinstated.



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