

Metals & Recycling Business

Through the smelting process, we efficiently produce high-quality metal ingots such as copper and precious metals from copper concentrate and recycled materials, and ensure a stable supply of these to Japan and regions throughout Asia. Furthermore, our recent increase in the processed amounts of recycled materials is contributing to the creation of a sustainable, Recycling-oriented society. In our detoxification processing treatment of industrial waste materials, we also use incineration and melting technologies cultivated in smelting characterized by “zero emissions”: No generation of secondary waste destined for disposal to landfill. This is contributing to the prevention of environmental pollution within Japan.

Key Strategies

- Integrated Management of Metals Business and Recycling Business
- Pursue the “best earnings feed mix” of copper concentrates and recycled materials (increase the ratio of recycled materials) to maximize business earnings

Review of Fiscal 2020

In April 2020, we launched the Metals & Recycling Division by restructuring business operations in order to integrate management of the Metals Business and the Recycling Business, both businesses are relied on the Saganoseki Smelter & Refinery of JX Metals Smelting Co., Ltd as a major production base. Through this, we are working to increase margins, reduce costs, and stabilize operations.

In the Metals Business, the international sales price of sulfuric acid plunged particularly in the first half of this fiscal year, mainly due to the impact of the spread of COVID-19. In addition, tight supply and demand conditions for copper concentrates led to gradually worsening purchasing conditions. Given this, we put in place measures to improve profitability including the increased collection of high-margin raw materials, and reduced costs. In the second half of this fiscal year, monetary easing policies in various countries coupled with the recovery in the Chinese market led to increased metal prices, which bolstered an improvement in earnings.

In the Recycling Business, while the collection of recycled raw materials saw a temporary slowdown due to sluggish economic activities attributable to COVID-19, rising metal prices



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meant the conditions for the scrap market remained strong in the second half of the fiscal year, seeing an increase in both collection volumes and margins.

Outlook for Fiscal 2021

While continuing with safe and stable operations at Operating sites such as the Saganoseki Smelter & Refinery, we forecast that purchasing conditions for copper concentrate will continue to be sluggish. Given these conditions, we will undertake a variety of measures in order to maximize profits. Specifically, increased investment in facilities at the Saganoseki Smelter & Refinery which is working towards increased processing of recycled raw materials coupled with efforts to increase procurement of those means pursuing an increase in processing of high-margin materials and a best earnings feed mix. We will also strengthen our business and work to make SDGs a reality through initiatives such as more efficient logistics improving operational efficiency and reducing costs, and commencing the purchase of CO₂-free power aimed at achieving net zero CO₂ emissions.

Titanium Business

Titanium, a light, strong metal resistant to corrosion, has wide-ranging uses, from aircraft to desalination plants, electric power plants, and other applications. Group company Toho Titanium Co., Ltd. is engaged in the smelting of titanium, and leverages related materials and technologies to manufacture such products as catalysts (for propylene polymerization) and chemicals (e.g. materials for electrodes and dielectrics in multilayer ceramic capacitors).

Key Strategies

- Strengthening revenue base by focusing investment in growth fields
- Rapidly generating revenue from the Saudi Arabia joint venture firm (ATTM)
- Generation and promotion of new businesses



Yamao Yasuji
President & Representative Director, Chief Executive Officer
Toho Titanium Co., Ltd.

Review of Fiscal 2020

For the Titanium Business, the impact of COVID-19 saw a precipitous drop in the number of airline passengers, and major curtailment in production activities coupled with inventory reductions in the supply chain led to an unprecedented drop in demand for titanium for use in aircraft, along with sluggish demand for general industry applications. Demand for semiconductor applications was strong. However, the Titanium Business continued to face a very difficult business environment. On the other hand, in the catalyst business our sales of the key propylene polymerization catalyst product were largely unchanged from the previous fiscal year, and the chemicals business also performed well due to a pickup in demand for telecommunications-related applications.

Outlook for Fiscal 2021

In the Titanium Business, a moderate recovery in demand for both aircraft and general industrial applications is expected, but a recovery to levels prior to COVID-19 may take several years. Long-term contracts revised with major overseas customer last year mean that we expect an increase in sales volumes, and we are planning to achieve an average 80% domestic utilization rate for titanium sponge. In the catalyst business, we expect to see continued strong demand for polypropylene, in spite of the residual impact of COVID-19. We expect the chemicals business to continue doing well on the back of strong demand for smartphones and automotive applications, as well as 5G-related demand, and the start of operation of the No. 4 nickel powder plant completed in April 2021 is expected to contribute to results in the second half of this fiscal year. Looking forward, we will pursue further business expansion in both the catalyst and chemical businesses targeting growth that exceeds market growth.

TOPICS

Initiatives to Increase Collection and Treatment of Recycled Raw Materials

In order to increase volumes of recycled raw materials that we handle, we have increased the collection and treatment capacity of the Changpin Recycle Center at Nikko Metals Taiwan, one of our main overseas operating sites, by 2.4 times. In Japan, construction work began in August 2020 to establish the JX Metal Smelting Co., Ltd. Oita Recycling Logistics Center (Oita City, Oita Port, Ozai Nishi-ku), a new collection base for recycled raw materials, and operation is scheduled to start in October 2021. Through these initiatives, we will pursue an optimal mix of copper concentrates and recycled raw materials, thereby further increasing our competitiveness.



Oita Recycling Logistics Center

TOPICS

Achieving Net Zero CO₂ by 2050 Centered on new Titanium Smelting Technologies

Toho Titanium Co., Ltd. has been conducting joint development of new titanium smelting technologies with a U.S. company, partially supported by the NEDO Strategic Energy Conservation Technology Innovation Program. As a result, this was determined to be a very promising technology in terms of economic efficiency, energy consumption, and in reducing CO₂ emissions, and this has been shifted to pilot-scale testing as of fiscal 2021. By introducing other technologies and measures based around this technology, we hope to achieve net zero CO₂ by 2050.

Overview of Titanium Smelting Methods

