

ICT & Energy

Strategy: Supply key materials for thermal management and establish them as de facto standards in cutting-edge fields

Message from the Division Head



Tomoya Kowada

Head of Electronics &
Innovative Products Division

The Electronics & Innovative Products division provides a wide range of distinct products developed to suit major trends, including AI, the expansion of data centers, and the growth of renewable energy. It plays a central role in Denka's growth under Phase 2 of the Management Plan "Mission 2030." We are actively investing in production facilities to address these trends. Most recently, in May 2026, we commenced operations at a dedicated plant at the Chiba Plant for SNECTON, a new resin material for low dielectric resin substrates. A new acetylene black plant in Thailand is scheduled to begin operating in November 2026 to meet growing demand for ESS (stationary energy storage systems) in data centers and cables for green energy applications. We also plan to commence operations at a new DENKA ALSINK plant in Omuta in 2027 to address surging demand for heat-dissipating base substrates for power modules used in high-voltage direct current (HVDC) transmission systems. By bringing these facilities into full operation, we will make a solid contribution to Denka's earning power.

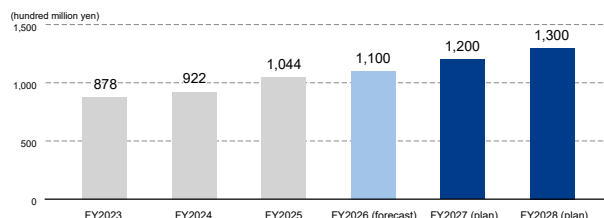
Compared to other divisions, we have relatively more opportunities to gain direct insight into customer needs (challenges) arising from changes in the market. We also have a responsibility to use these insights to continuously launch new businesses and products. We are proposing innovative materials to meet the needs of our customers for the next generation and beyond. We are planning a range of new products for launch, and hope you look forward to what is coming in the future.

Strategies for Achieving the Goals of the Management Plan "Mission 2030" (Strategies toward 100% "Three-Star Businesses")

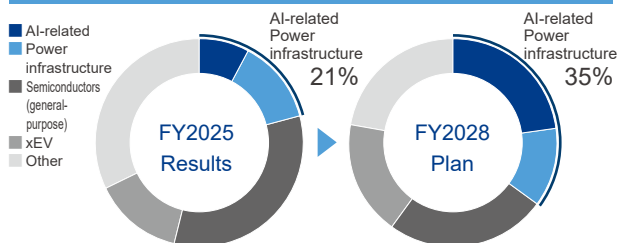
Strategic areas and markets	[Key Products]	[Phase 1 Results]	[Phase 2 Plan]	[Division Goals for FY2030]
Semiconductors (AI-related)	<ul style="list-style-type: none"> ● SNECTON ● Low dielectric tangent silica ● Spherical alumina 	<ul style="list-style-type: none"> ● Launched SNECTON for copper-clad laminates and interlayer insulating materials for high-speed communication devices (February 2025) ● Launched a next-generation filler plant (September 2025) 	<ul style="list-style-type: none"> ● Establish SNECTON, spherical silica, and spherical alumina as de facto standards in response to expanding markets for high-speed communications, including AI applications <ul style="list-style-type: none"> • Begin mass production at the in-house SNECTON plant at the Chiba Plant (from the end of 2026 onward) and consider capacity expansion ● Address expanding markets for direct-current power transmission, ESS, and other power infrastructure applications <ul style="list-style-type: none"> • Begin mass production of acetylene black at DSAM (scheduled for 2027) • Begin mass production following a 1.3-fold increase in DENKA ALSINK capacity (scheduled for the second half of 2027) 	<ul style="list-style-type: none"> ● Secure a dominant presence in megatrend fields (6G, electrification of mobility, renewable energy, semiconductors, and hydrogen) ● Develop new products with a view to 2040 ● Strengthen raw material supply chains (particularly silica stone and other key materials) ● Strengthen the quality assurance system (particularly for the semiconductor field) ● Operate businesses with an emphasis on ESG
Power infrastructure	<ul style="list-style-type: none"> ● Acetylene black ● DENKA ALSINK ● ANP 	<ul style="list-style-type: none"> ● Constructed an acetylene black plant in Thailand (DSAM) ● Began selling a high-reliability ANP grade for direct-current power transmission (application development) 		
xEV	<ul style="list-style-type: none"> ● Acetylene black ● Spherical alumina ● Silicon nitride powder 	<ul style="list-style-type: none"> ● Undertook construction to expand silicon nitride production capacity by 1.5 times (April 2025) 		

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Net Sales Trends and Outlook



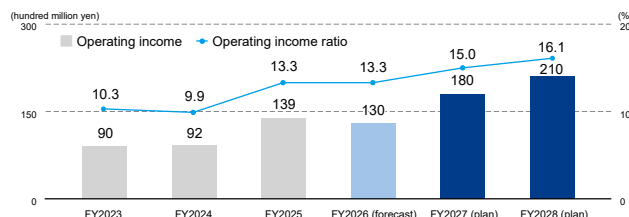
Net Sales Breakdown by Application



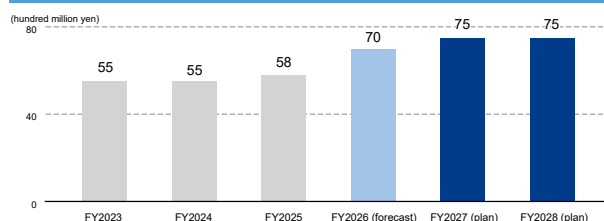
Share of total net sales (FY2025): 27%

Share of total employees (FY2025): 28%

Trends and Outlook for Operating Income/Operating Income Ratio



R&D Spending



Strategy for Phase 2 of the Management Plan "Mission 2030"

1) AI-related

With circuits becoming increasingly miniaturized and multilayered in generative AI data centers and other applications, the need for thermal management is growing.

→ We will expand sales of SNECTON, which has strong potential as a low-dielectric material, establish it as a de facto standard in the low dielectric materials market, and develop composite materials built around SNECTON.

See ▶ P16 for details

2) Power Infrastructure

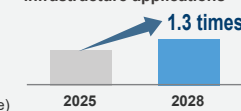
The growing adoption of AI is driving the construction of new data centers and increases in their workloads, leading to a significant rise in electricity demand. We view the resulting expansion of the power infrastructure market as a major growth opportunity. By enhancing our related products and technologies and strengthening our supply capabilities, we will steadily capture this growing demand.

Acetylene black



High-voltage
cables

LiB (for ESS)

Growth rate of the high-voltage
cable marketNet sales for power
infrastructure applications

[High-voltage Cable Applications]

Demand growth driven by the shift to direct current and higher voltages

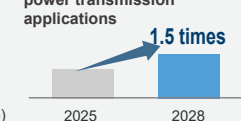
[Shift to ESS Applications]

Approach areas of demand in North America, China, Europe, and other regions
Energy storage trends for data centers in North America

DENKA ALSINK



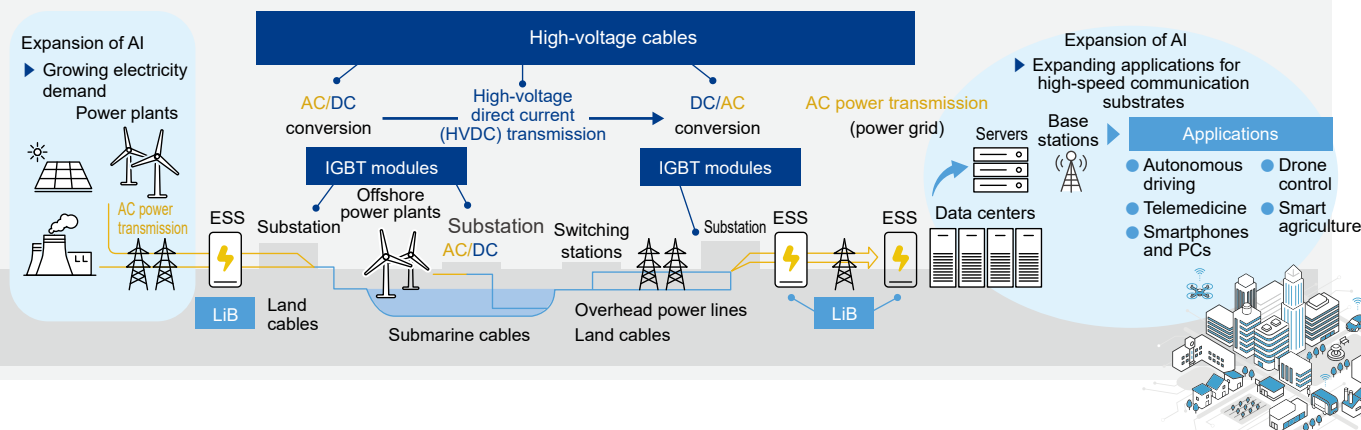
IGBT modules

Growth rate of the IGBT module
(high-voltage range) marketNet sales for direct-current
power transmission
applications

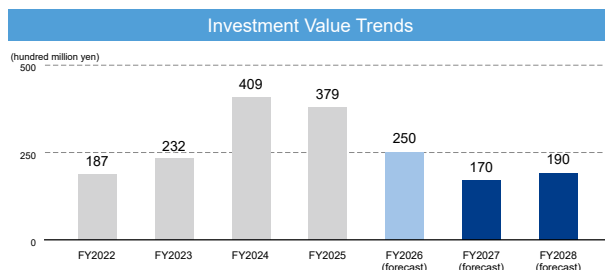
[For Direct-current Power Transmission]

Growing demand for equipment converting alternating current to direct current for enabling power transmission at higher voltages and currents

Relationship Between Power Infrastructure and AI-related Applications



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For products such as spherical silica, spherical alumina, and silicon nitride, where production capacity has already been expanded, develop new applications and take other steps to generate new demand (achieving returns on upfront investments).

In Phase 2, carefully select investments to meet growing demand in AI and power infrastructure

- SNECTON Begin mass production at the in-house SNECTON plant at the Chiba Plant (from the end of 2026 onward) and consider capacity expansion
- Begin mass production of acetylene black at DSAM (scheduled for 2027)
- Begin mass production following a 1.3-fold increase in DENKA ALSINK capacity (scheduled for the second half of 2027)

SWOT Analysis

- A diverse product lineup capable of meeting a broad range of customer needs (various ceramic materials, high-performance organic materials)
- Strong market intelligence derived from the high market shares of our products
- A broad range of essential technologies, including high-temperature control, nitriding, spherical shaping, and calcining technologies

Strengths

- The growing importance of communications and advances in high-speed communications driven by AI, IoT, autonomous driving systems, and other technologies
- The shift toward a decarbonized society, including the expansion of xEVs and renewable energy

Opportunities

Weaknesses

- Growing financial burden attributable to capital expenditure due to rapid market expansion
Countermeasure → Increase the utilization rates of existing facilities and their contribution to earnings
- Development capabilities spread too thinly across a large number of products
Countermeasure → Optimize the portfolio and prioritize R&D

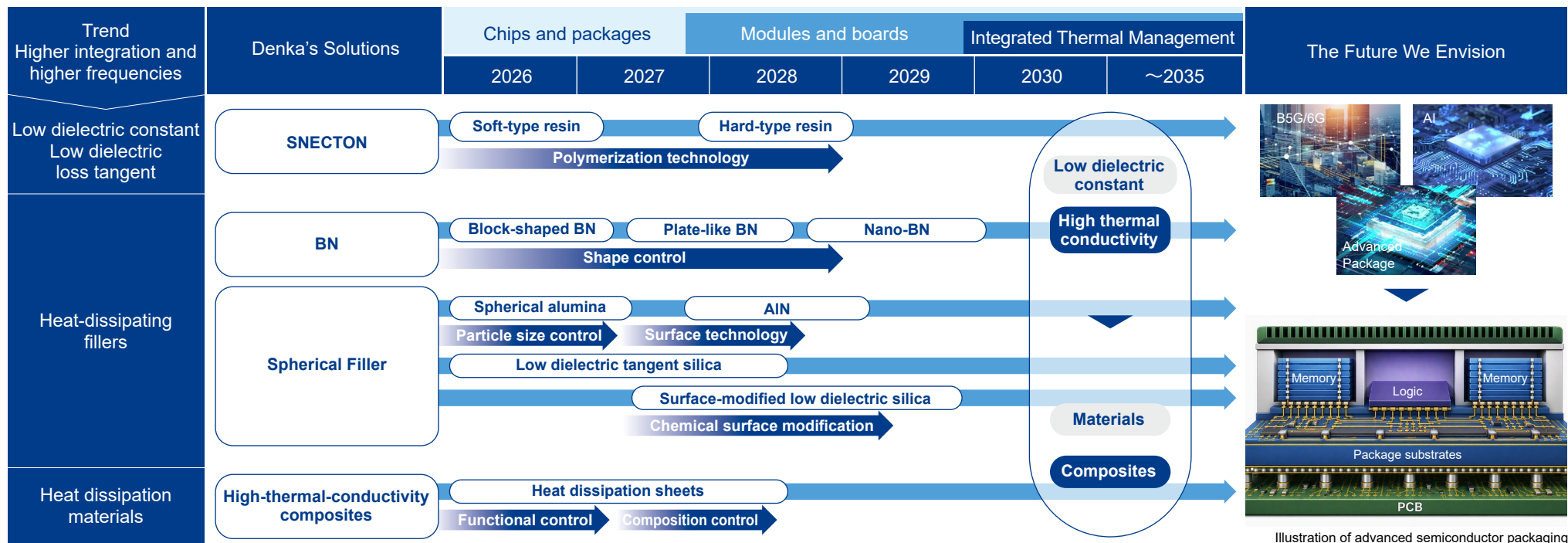
Threats

- Potential game-changing developments driven by new materials
Countermeasure → Establish a quality assurance system aligned with market conditions and accelerate new product development
- A major shift in technological development trends due to factors such as the growing need for environmental solutions
Countermeasure → Diversify information sources
- Increasing competition, particularly from companies in emerging countries
Countermeasure → Deter new market entrants through a patent portfolio
- A drop in price competitiveness due to increased tariff costs
Countermeasure → Reduce costs by effectively using lower-cost raw materials and pursuing production efficiency

Mechanism for Driving Growth | Extensive Technological Capabilities and Responsiveness to Market Needs Sustainable Growth in AI and Other Cutting-Edge Fields



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Contributing to society through business

● Denka's Initiatives to Combine Low Dielectric Performance with Heat Dissipation

As semiconductor integration and operating frequencies increase rapidly, meeting the demands of faster communications and larger data volumes requires both low dielectric properties that reduce signal loss and high heat dissipation performance that enables efficient control of heat generation. We provide comprehensive solutions to these two critical challenges, drawing on the materials technologies that we have developed over many years.

SNECTON delivers excellent low dielectric properties, helping ensure stable signal transmission in high-speed communications. It also supports diverse applications by enabling a wide range of material designs, from soft to rigid resins. Shape-control technologies that advance boron nitride (BN) from block-shaped to plate-like and nanoscale forms also significantly improve thermal conductivity, contributing to efficient heat dissipation in semiconductor devices.

Various fillers, including spherical alumina and aluminum nitride, use particle size control and surface treatment technologies to optimize dispersibility and functionality, achieving both electrical and thermal performance. High-thermal-conductivity composites and heat dissipation sheets combining these materials support thermal management at the package level and improve overall product reliability.

By integrating core technologies such as polymerization, shape control, surface modification, and composition design, we deliver consistent value, from individual materials to composites. We will continue to enhance this technological foundation to improve the performance and reliability of advanced semiconductor packages for the 5G/6G era. As a materials partner supporting the next-generation information society, we are aiming to create sustainable value.