

Research & Development —Initiatives to Support Growth

Basic approach

Since its establishment, Noritake has brought the various technologies and products it has developed through ceramics manufacturing to the global market.

The Noritake Group promotes research and development that leads to next-generation businesses, and will contribute to society in a wide range of areas by pursuing the new possibilities held by our unique material and process technologies.

Technologies of Our Strength

- Fusion Technologies for Fine-particle: Techniques to fusion metal or ceramic fine-particle from the size of nanometer to micron
- Coating Technologies for Fine-particle: Coating technologies to improve the quality and the functionality of the metal and ceramic fine-particle
- Dispersion Technologies: Monodispersion technologies for micro-granules such as those made of metals or ceramics
- Forming Technologies: Techniques to form various ceramics parts with less cost and with greater stability
- Technologies for Porous Materials: Core technologies for porous ceramics materials, such as grinding wheels
- Fusion Technologies: Low-melting point glass technology for joining materials with different coefficients of thermal expansion, such as between dissimilar materials
- Environment-friendly Decorative Material Technologies: Pigments, enamels, and paints that shine with brilliant color and are kind to the environment
- Printing and Decorative Technologies: Screen printing, decorative and circuit printing for industrial inkjet printing

TOPICS

Development of SUPCA[®], porous material for DAC

Noritake has developed a porous material called SUPCA[®], which directly captures CO₂ from the atmosphere (direct air capture; DAC).

SUPCA[®] is a product developed using Noritake's unique technology that combines organic materials with inorganic particles (micro-sized adsorbents) in a special structure. By retaining CO₂ absorption liquid within the internal adsorbent, it functions to absorb, desorb, and capture CO₂.

SUPCA is flexible, making it easy to process into various shapes. By shaping it to allow for efficient gas flow, energy consumption can be reduced when bringing SUPCA[®] into contact with the atmosphere.

Additionally, some of the raw materials used in SUPCA[®] are biomass materials produced with reduced CO₂ emissions. Moving forward, we will also adopt recycled materials and advance development for environmental sustainability.



MESSAGE

We discover the new seeds of growth for our Group by exploring every possibility and embracing challenges in the pursuit of new business creation.



Representative Director and President
In charge of Research & Development Center and
Intellectual Property Planning Department

Akira Higashiyama

In order for the Noritake Group to continue to grow and contribute to society, it is necessary to create new businesses. In the 12th Three-year Business Plan, which began in fiscal 2022, we formulated a Long-term Vision for 2030 (ideal target) "to become a driving force essential for today's changing society with our unique material and process technologies." Our Research & Development Center is now undergoing significant transformation to realize this vision.

For many years, Noritake has focused on four main business areas: industrial products, ceramics & materials, engineering, and tabletop. However, we have not successfully developed any major new businesses beyond these for quite some time. To break out of this stagnation, we established the New Business Creation Committee last year. Traditionally, development at Noritake has been siloed within each business and research department, but working solely within this framework does not foster the creation of innovative new products or technologies. Most importantly, creating new products requires the initiative of every employee and maximization of their potential.

This Committee is advancing cross-company efforts to bring together the insights of employees with various ideas and experiences from across the organization, from the stage of business development to commercialization.

Creating new products and businesses cannot be achieved overnight. It requires patience—the selection of ideas with promise and growth potential, nurturing them step by step. At the same time, speed is crucial in today's world. Therefore, we are working to move beyond our conventional policy of self-reliance and collaborate with external resources to accelerate development.

By exploring every possibility and embracing challenges, we aim to discover the new seeds of growth for our Group, and cultivate them to bloom into great success.



New Business Creation Committee