Special Feature

Initiatives for Sustained Growth through the EVAL Business

Hideo Sugiura
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EVAL Division
Vinyl Acetate Resin
Company

— EVAL™ Supporting Our Daily Lives

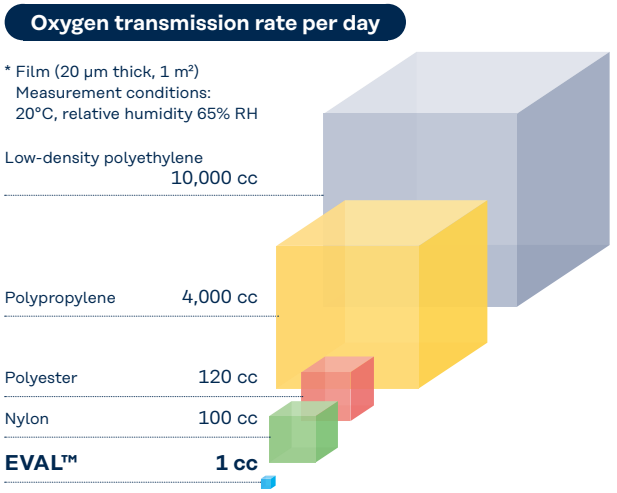
EVAL™ is an ethylene-vinyl alcohol copolymer (EVOH) resin that we were the first in the world to develop and commercialize in 1972. With one of the highest levels of gas barrier properties among plastics, this material is widely used in industrial applications such as automotive fuel tanks, floor heating pipes, and vacuum insulation panels for refrigerators, as well as in food packaging, making it an indispensable part of modern life.

The figure on the right compares the gas barrier properties of EVAL™ with those of various polymers, showing the amount of oxygen transmitted per day. Assuming that 1 cc of oxygen passes through EVAL™ under certain conditions, 100 cc passes through nylon or PET; 4,000 cc through polypropylene; and 10,000 cc through low-density polyethylene.

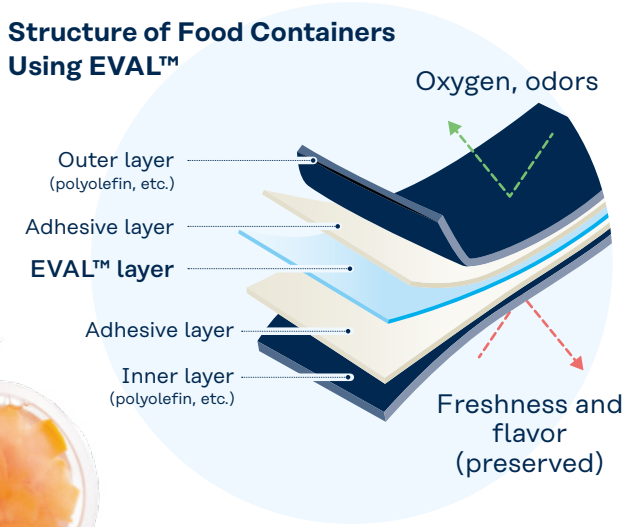
Given that EVAL™ has exceptionally high gas barrier properties, using it as the barrier layer in food packaging materials greatly reduces the penetration of oxygen, which causes food spoilage and deterioration. As a result, it is useful for the long-term preservation of food and the extension of food shelf life, while also helping to reduce food loss. In addition, because it exhibits excellent barrier performance even in thin films, it contributes to reducing packaging volume, improving recyclability, and lowering GHG emissions during transportation through weight reduction.

Furthermore, to meet the diversifying needs for barrier materials, we also offer PLANTIC™, a biomass-derived gas barrier material, thereby strengthening our ability to respond to the globally growing demand for environmentally friendly packaging.

Comparison of Gas Barrier Performance



Structure of Food Containers Using EVAL™



Three Key Points

1. Reducing food loss and improving packaging recyclability
2. Growing global demand driven by the shift to a circular economy
3. Strengthening our market leadership with a new plant in Singapore

Initiatives for Sustained Growth through the EVAL Business

— Market Growth Potential

In recent years, the shift toward recyclable packaging materials has gained momentum from the perspective of a circular economy. Particularly in Europe and the United States, demand for EVAL™ as a barrier material that does not hinder the recycling of polyolefins*1 has expanded, and we expect to see continued global growth.

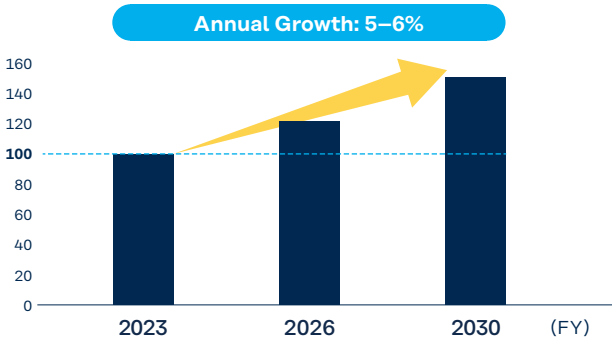
In 2025, the PPWR*2, which regulates product packaging and waste in EU markets, came into effect. All packaging distributed within the EU must be recyclable by 2030, and global food brand owners are also committed to making packaging materials recyclable. To comply with the PPWR, it is necessary to limit the use of non-polyolefin materials and obtain mono-material (single-material) certification. We have a competitive advantage in high-barrier grades and other specialty EVOH resins that meet this requirement. Furthermore, the expansion of extended producer responsibility (EPR) across various Asian countries is also driving the promotion of recycling.

Against the backdrop of increased demand driven by economic growth in emerging countries, growing demand for food loss reduction, and progress in legislation related to packaging material recycling, we expect demand for EVOH resin to expand at an average annual growth rate of 5–6% through to around 2030.

*1 Materials commonly used in food packaging, such as polyethylene and polypropylene
*2 Packaging and Packaging Waste Regulation

EVOH Resin Demand Growth Forecast

Image of Market Expansion (2023 as 100)



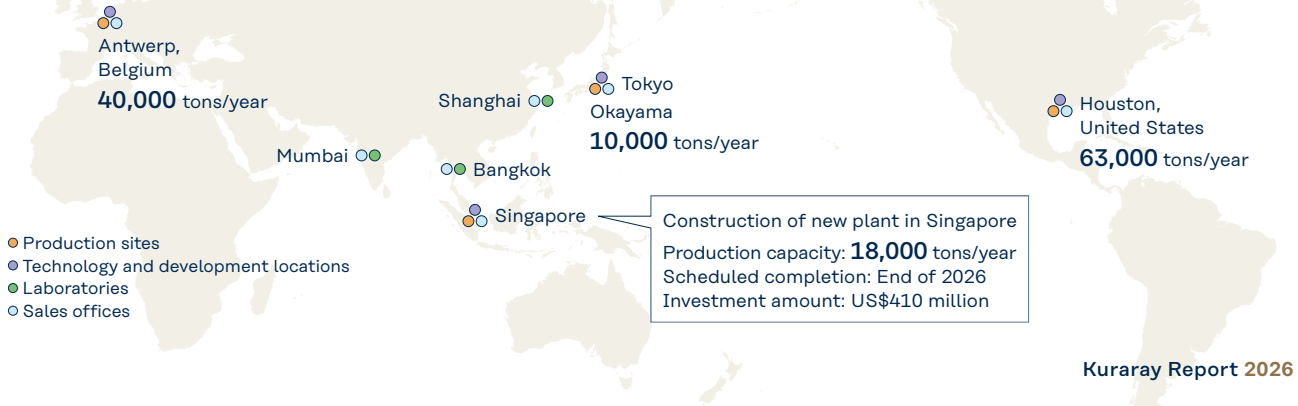
— Capturing Demand through Production Capacity Expansion

To meet the growing global demand for EVOH resin, we are constructing a new plant in Singapore with an annual production capacity of 18,000 tons, which is scheduled for completion at the end of 2026. Along with capacity expansions at our plants in the United States and Europe, as well as the new plant in Singapore, our total EVOH resin production capacity will reach 131,000 tons, enabling stable supply through a four-pronged network spanning Japan, the United States, Europe, and Singapore.

Furthermore, in September 2025, we established the Kuraray Asia Pacific Technical Center, a technology support hub for Asian markets, within the Singapore Science Park. Equipped with facilities for material evaluation, analysis, and application technologies, this center can quickly provide solutions tailored to the needs of customers in the region. The key feature of this center is its market development function, through which we conduct preservation tests and quality evaluations for food brand owners and drive the development of the barrier packaging market. By undertaking market development activities primarily at the center before the new plant begins operation, we aim to accelerate product uptake in Asian markets. Together with our laboratories in China, India, and Thailand, we will strongly support sales expansion after the new plant comes online.

In this way, by strengthening our global production and technical support framework, we will effectively meet growing demand and further solidify our position as a market leader.

Expansion of EVAL™ Production Capacity and Enhancement of Customer Support and Analysis Functions in the Growing Asian Market



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New plant construction project video

Message From the Project Leader

Building the Next Core Base for EVAL™ as “One Team”

Kuraray Asia Pacific Pte. Ltd.
EVAL Singapore Plant Project Director

Steven Vermeulen

To strengthen a stable supply system for each region in response to growing global demand for EVAL™, Kuraray is constructing a new plant in Singapore. After completion of this facility, together with the existing production of PVOH resin, this location will become one of the Group’s key production bases.

From the conceptual stage several years ago to the current construction peak involving over 2,000 workers on site, the project team has been working to meet business expectations and to safely deliver the new facility. So far, plant construction has proceeded smoothly thanks to the “One Team” spirit—the basis of collaboration between Kuraray, the engineering contractor, and multiple construction companies. In particular, the safety record of achieving zero work-related accidents during a total of more than four million work hours* is a remarkable achievement.

The Kuraray team is an international one, consisting of members from various places such as Japan, Singapore, and Belgium. The success of the project can be greatly attributed to the cultural diversity and various backgrounds of the team members. In addition to multicultural perspectives and knowledge, ongoing support and clear direction from management have also created the basis for smooth project execution so far.

Personally, I have been working for Kuraray for 20 years at EVAL Europe N.V. in Antwerp, Belgium in many roles in production, process control, process engineering, process safety, project management, and asset management. I am honored to be able to apply this experience to play my part in leading the new plant construction and contribute to the development of the EVAL business in the Asian region.

Construction has now entered the last phase. I am confident we will overcome the remaining challenges to complete the project as planned with a continued focus on safety and smoothly start operations with support from our existing plants in Belgium, Japan, and the United States to deliver high-quality EVAL™ to our customers in a stable manner.

* Total work hours calculated by multiplying working hours by the number of workers (as of April 2026)

Integrating Expertise from Plants in Japan, the United States, and Europe to Maximize Safety and Operational Reliability

Kuraray Asia Pacific Pte. Ltd.
EVAL Singapore Plant Project Team

Technical staff **(from left) Sho Sato and Akinori Jinde**

Sato is in charge of mechanical equipment, while Jinde is responsible for production and processes. In this project, we are integrating and applying expertise from our existing EVAL™ plants in Japan, the United States, and Europe to maximize safety and operational reliability. By applying the lessons learned from issues and challenges encountered during the design, construction, and operation of previous large-scale investments, we are working as “One Team” with local staff to ensure smooth execution from design through to construction and operation. We are currently managing work progress, quality, and safety at the construction site, which is nearing completion, while preparing for the full-scale start-up of the plant once construction is finished.

Delivering Kuraray’s Unique Value to Customers through the Pursuit of Differentiation

Kuraray Asia Pacific Pte. Ltd.
Senior Specialist – Sales & Marketing

Sales representative **Arata Kobayashi**

As a sales representative, I am focused on expanding EVAL™ sales in the Asia-Pacific region. To steadily capture the growing demand in this market, I constantly work on differentiating the value of EVAL™ from our competitors. By starting up a new plant in Singapore, Kuraray will be able to offer added value, including improved supply stability, shorter lead times, and increased capacity for differentiated grades. In addition, leveraging Kuraray’s unique strengths—such as the high-quality technical service provided by the new technical center established in Singapore in 2025—we aim to further accelerate expansion of the EVAL business.