



kuraray

Investment in a new EVAL™ plant

March 27, 2024
Kuraray Co., Ltd.

- Chemical name : Ethylene vinyl alcohol copolymer (EVOH)
Kuraray is the world's pioneer; started production in 1972.
- Characteristics : The highest level of gas barrier properties as resin materials for packaging.
- Main applications : Food packaging (preventing oxidation)
Automotive plastic fuel tank
Under-floor heating pipes, etc.

EVAL™, EVOH resin



Food packaging



Automotive plastic fuel tank



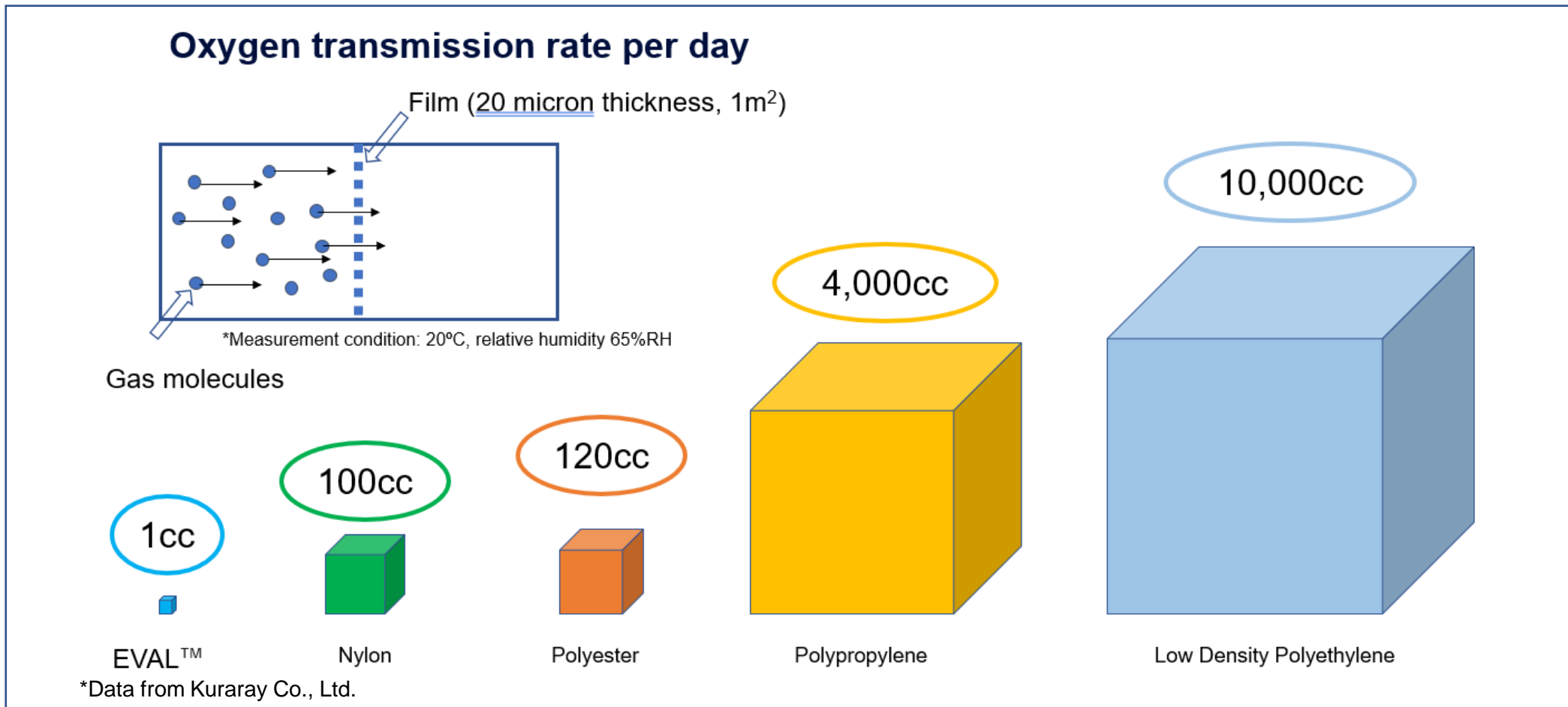
Under-floor heating pipes



Vacuum insulation panels



Comparison of gas barrier properties



- Demand for food packaging expands globally (driven by increased consciousness for reduction of food loss and circular economy)



Investment decision on new plant in Asia

To firm the position as the market leader

Place :	Kuraray Asia Pacific Pte. Ltd. (Jurong Island, Singapore)
Production capacity :	EVOH resin, 18,000 tons/year The front-end process will be constructed with a capacity of 36,000 t/y with a view to future expansion. The back-end process is divided into two phases, with the first phase being implemented at this time.
Start operation :	End of 2026
Investment amount	US\$410 million

- Expand capacity in growing Asian market and strengthen global supply chain
- Enhance technical service in the region (Southeast Asia)



Region	Annual production capacity (tons)			Sites
	2023	Expansion 2024~2026	End of 2026	
Japan	10,000		10,000	Okayama
Europe	35,000	+ 5,000	40,000	Antwerp, Belgium
Americas	58,000	+ 5,000	63,000	Houston, the U.S.
Asia		+ 18,000	18,000	Singapore
Total	103,000	+28,000	131,000	

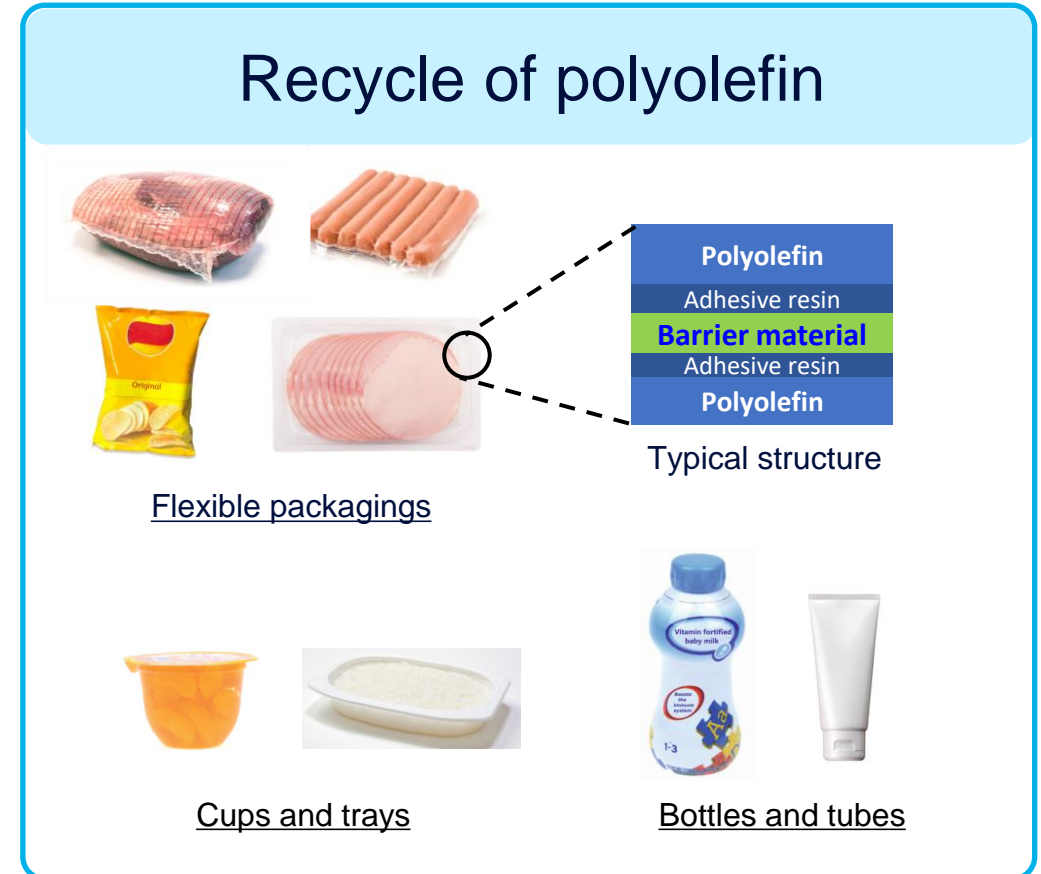
■ Regulation for recycling packaging materials

- ✓ Europe (Regulations for packaging and its waste)
 - 2025: Extended Producer Responsibility (EPR) to come into force
 - 2030: Mandatory to replace to recyclable packaging materials
- ✓ Laws and regulations are tightening in India and other emerging economies.

■ Mechanical recycling is becoming more common*

- ✓ Mono-material, made only of polyolefin can be recycled
 - ✓ EVOH does not prevent recycling of polyolefin
- ▼
- ✓ EVOH can replace other barrier materials (aluminum foil, PVDC, vapor deposition PET or Nylon) which do prevent polyolefin recycling.

* A way of recycling. Re-melt packaging materials and reuse it as packaging materials or daily commodities.



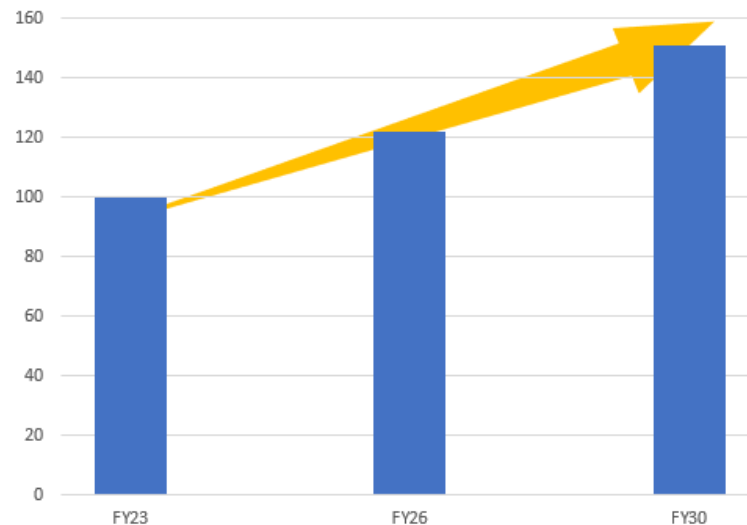
*Typical example of polyolefin: Polyethylene (PE) or Polypropylene (PP)

- Continued high growth led by increased standards of living in emerging economies
- Growing focus on food loss reduction
- Increasing regulations concerning packaging materials and demand for environmentally friendly materials.



Expect 5-6% annual demand growth

<Image of market expansion, 2023 as 100>





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