



YKK AP Shikoku Plant Commences the Reconstruction of Its **Aluminum Casting Facilities**

Enhanced Aluminum Recycling Rates to Contribute to the Achievement of Carbon Neutrality—Operation Begins of the Aluminum Melting and Holding Furnaces of Phase I Construction

YKK AP Inc. (Headquarters: Chiyoda-ku, Tokyo; President: Hidemitsu Hori) has launched its plan to reconstruct the aluminum casting facilities of its Shikoku Plant (Ayauta District, Kagawa Prefecture). This is an initiative toward the achievement of carbon neutrality by increasing the aluminum recycling rate*1 of the Shikoku Plant from the current 33% to 76% in FY2024 through the introduction of a dedicated recycling facility. The renewal of the aluminum melting and holding furnaces that had been progressing as part of Phase I construction was recently completed and operation of the facility commenced on September 30.





(On left) Exterior view of Shikoku Plant (On right) Aluminum melting furnace

The renewal of the aluminum melting and holding furnaces, which constitutes Phase I construction, will reduce CO₂ emissions during the manufacturing process by 18% as compared to conventional emissions. In addition to strengthening quality and cost competitiveness through adoption of the latest technologies, efforts will be made to enhance safety during operation as well as in the case of accidents. The improvement of energy efficiency will reduce the environmental load. The investment amount for Phase I construction is approximately 900 million yen.

The construction of YKK AP's first recycling furnace is planned for Phase II construction. Operation of the new recycling furnace will enable a great increase in the ratio of recycled aluminum scraps from the market that is used. The plan is to increase the aluminum recycling rate at the Shikoku Plant from the current 33%*2 to 76% in FY2024, which is the final year of the current mid-term plan, and to 100%*3 by FY2030.

Aluminum material procurement accounts for the greatest ratio of CO₂ emissions within the whole YKK AP supply chain. This is because a massive amount of electrical power is required to extract the metal from minerals. On the other hand, CO_2 emissions from aluminum casting using recycled aluminum are said to be only around 3% of making new aluminum. YKK AP already recycles nearly 100% of the scrap aluminum that arises internally from manufacturing processes. Introduction of a recycling furnace in Phase II construction will increase the ratio of the recycled aluminum scraps from the market that is used, or reduce the ratio of new aluminum that is used. This will greatly decrease CO_2 emissions.

The plan to reconstruct aluminum casting facilities through Phase I and Phase II construction will not only improve productivity and energy efficiency and reduce CO_2 emissions in the manufacturing process but will also contribute to the achievement of carbon neutrality by increasing the aluminum recycling rate.

[Outline of the Plan to Reconstruct Aluminum Casting Facilities at the Shikoku Plant]

	Phase I construction	Phase II construction
Commencement	October 2021	October 2022 planned
of construction		
Commencement	September 2022	September 2023 planned
of facility operations		
Construction details	Renewal of the aluminum	Construction of a new recycling
	melting and holding furnaces	furnace
Capital investments	Approximately 900 million yen	Approximately 500 million yen

[Outline of Shikoku Plant]

Address	4000 Yoshida, Utazu Town, Ayauta District, Kagawa Prefecture
Commencement	February 1972
of operations	
Total area	324,300 square meters
Total floor area	180,300 square meters
Person responsible	Kazuki Akiya
Number	700 (as of April 1, 2022)
of employees	
Manufactured items	Vinyl windows, aluminum-vinyl composite windows, and aluminum
	profiles

^{*1:} Recycling rate through the use of recycled aluminum scraps from the market (recycled materials, such as aluminum scrap and other such materials collected from the market)

^{*2:} FV2021 record

^{*3:} In-house scrap aluminum and added metals are excluded from the denominator for calculating the recycling rate