

News Release (July 9, 2024)

Completion of the mass production system for "EcoEnd™," the Next-Generation Beverage Can Lid, Which Achieves a 40% Reduction in Greenhouse Gas Emissions - A Collaborative Effort by UACJ and Toyo Seikan -

Toyo Seikan Co., Ltd. ("Toyo Seikan"), a consolidated subsidiary of Toyo Seikan Group Holdings, Ltd., has completed the establishment of the production system for EcoEnd, a beverage can lid that reduces greenhouse gas (GHG) emissions by approximately 40% compared to current products, developed jointly with UACJ Corporation ("UACJ").^{*1} This includes the establishment of a lid material production system and the procurement of recycling materials by UACJ, as well as the preparation of lid manufacturing equipment at the Toyo Seikan Ishioka Factory. We will now proceed with preparations for mass production to meet the needs of our customers.



<EcoEnd's Features>

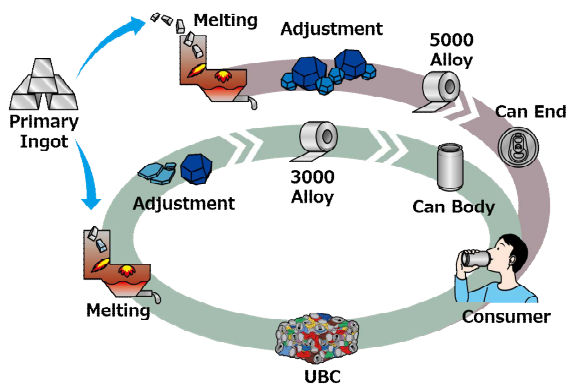
① **Significant reduction in GHG emissions**

By significantly increasing the use of recycled materials, which have a GHG emission of approximately 3% compared to primary aluminum, we have achieved a substantial reduction in GHG emissions during the production of raw materials. Compared to current beverage can lids, EcoEnd reduces GHG emissions by approximately 13,000 tons per billion lids.^{*2} If all beverage can lids sold by Toyo Seikan in Japan are replaced with EcoEnd, an estimated annual reduction of approximately 140,000 tons can be achieved.^{*3}

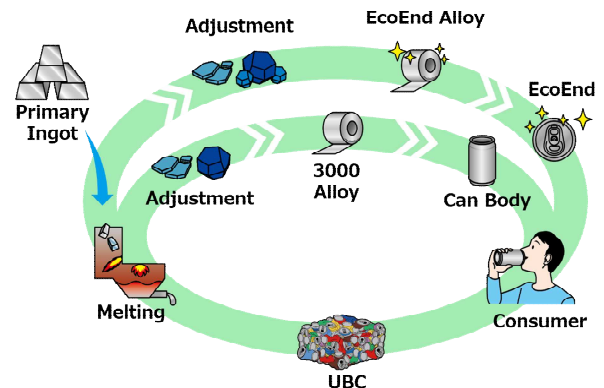
② Proposal for a new aluminum recycling flow with the increased use of recycled materials

Because the strength and other characteristics required for the lid and the body of the can are different, a certain amount of primary aluminum needs to be used for the lid, and the composition needs to be adjusted. The material in the EcoEnd reduces the use of primary aluminum and increases the proportion of recycled materials, such as used beverage cans (UBC), so that it matches the composition of the can body more closely. Therefore, at the point of melting, the material of the EcoEnd and the can body can be considered the same mono-material. After it melts, the composition can be adjusted, and the characteristics of the lid and the can body can be differentiated. The development of the EcoEnd has made it possible to circulate a large amount of recycled materials in the lid, which was previously challenging, through postmelting composition adjustment and manufacturing techniques. In the future, more recycled materials will be used in the lid, leading to a reduction in GHG emissions due to the decrease in primary aluminum usage. The new aluminum material circulation flow realized by EcoEnd is as follows:

Current Aluminum Container Material Recycling Flow



New Recycling Flow Proposed by EcoEnd



③ No need to change filling line equipment due to consistent lid thickness

When the same material as that used in the can body is used for the lids, it is generally necessary to increase the lid's thickness to compensate for the lack of strength due to the increased amount of recycled material.

By combining the material manufacturing technology by UACJ and the lid forming technology by Toyo Seikan, EcoEnd has achieved the same quality performance as the current lids, even with increased use of recycled materials. Because there is no change in the thickness of the lid,^{*4} there is no need to change the equipment that attaches the lid after beverage filling, allowing for smooth replacement.

Our company and UACJ signed a business partnership agreement on February 6, 2023, aiming to further promote aluminum can horizontal recycling. The development of EcoEnd is also part of this partnership. Going forward, we will continue to strive for further promotion of aluminum can horizontal recycling and the reduction of greenhouse gas emissions throughout the entire supply chain through this business partnership.

*1 "[Development of Next-Generation Eco-Friendly Can Lid 'EcoEnd™' with Major Revisions to Materials and Manufacturing Methods - Joint efforts by Toyo Seikan and UACJ reduce greenhouse gas emissions by 40%](#)," as stated in the press release dated December 4, 2023.

*2 According to Toyo Seikan's investigation.

*3 The calculation is based on the GHG reduction per unit of EcoEnd and the actual production results of the current specification for stay-on-tab can lids manufactured by Toyo Seikan in the fiscal year 2019.

*4 This refers to EcoEnd for the domestic market. Development for the international market is currently underway.

About UACJ Corporation

UACJ Corporation is an integrated aluminum manufacturer doing business globally. Under the slogan “aluminum lightens the world,” we aim to contribute to the realization of a sustainable and prosperous society through technology that harnesses the power of materials.

UACJ, which was established in 2013 through the business integration of Furukawa-Sky Aluminum Corporation and Sumitomo Light Metal Industries, Ltd., has a history in rolling aluminum stretching back more than 125 years. The UACJ Group has five businesses: Flat Rolled Products, Automotive Parts, Extrusion & Metal Components, Casting and Forging, and Foil. We support people's daily lives and industry by supplying aluminum materials across a wide range of fields, for beverage cans, automobiles, IT equipment, air conditioning, and the aerospace industry.

In the fiscal year ended March 31, 2024, the UACJ Group had consolidated revenue of ¥892.8 billion and approximately 10,500 employees.

About Toyo Seikan Group Holdings, Ltd.

Toyo Seikan Group Holdings, Ltd. is a world-class comprehensive packaging manufacturer that delivers a variety of packaging containers using materials such as metal, plastic, paper, and glass. In our Long-Term Management Vision 2050, "The Future, Wrapped for All," we set a goal to go beyond our traditional field of packaging, aiming to become a corporate group that creates new value that changes society. Founded in 1917, Toyo Seikan Group Holdings, Ltd. conducts business on a global scale, with 44 group companies in Japan and 47 overseas, and currently employs a multinational workforce of 20,000 people. For more information, please visit <https://www.tskg-hd.com/en>.

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