

Denka Decides on the Construction of Chemical Recycling Plant for Used Polystyrene Resins ~Aiming to Build a Carbon-free, Resource Circulating Society by Reusing Waste Plastic to Achieve the SDGs~

Denka Company Limited (headquarters: Chuo-ku, Tokyo; president: Toshio Imai; hereinafter, “Denka”) announced that Denka and Toyo Styrene Co., Ltd. (headquarters: Minato-ku, Tokyo; president: Sanshiro Matsushita; hereinafter “Toyo Styrene”), which is one of Denka’s equity-method affiliates, have decided to construct a chemical recycling plant for used polystyrene (PS) (annual processing capacity: approx. 3,000 tons). The plant will be constructed on the premises of Denka’s Chiba Plant (Ichihara, Chiba) and the plan is for it to begin operating in the second half of FY2023.

To establish a carbon-free, resource circulating society, it is necessary to reduce the amount of new oil resources that are used and to recycle waste plastics. Unlike material recycling, there are not any limitations on the applications for chemical recycling and the materials can be recycled as many times as needed. In addition, this method is able to make maximum use of the property of styrene resins that enables easy pyrolysis from a polymer to a monomer compared with other plastics.

Under a technical license agreement concluded with Agilyx in the U.S., which has commercialized chemical recycling plants converting used polystyrene to styrene monomer, for the first time in the world, Toyo Styrene will construct a chemical recycling plant and start a business collecting post-industrial materials from users. In addition, Denka plans to participate in a platform integrating citizens, companies, and governments into the Creation of a Circular Economy Starting with Ichihara-shi project conducted by Ichihara-shi in Chiba prefecture, an SDGs Future City.

The Denka Group supplies various products connected with the styrene chain from transparent resins such as SBC and MS resins to highly functional resins such as heat-resistant agents and food packaging materials and containers, which support the lives of people and are used in a wide range of applications from automobiles to home electrical appliances and foods. To fulfill its responsibilities to society as a company that manufactures petrochemical products, Denka will contribute to the quick establishment of a carbon-free, resource circulating society, aiming to apply chemical recycling throughout the styrene chain.

Denka will aim to be an irreplaceable company for society, which creates a better world for all through work it can perform better than anybody, using the SDGs as a compass.

1. Outline of the investment

• Investment location:

The premises of the Chiba Plant of Denka Company Limited (6, Goi Minamikaigan, Ichihara-shi, Chiba)

• Investment detail: Introduction of chemical recycling plant equipment for used polystyrene resins

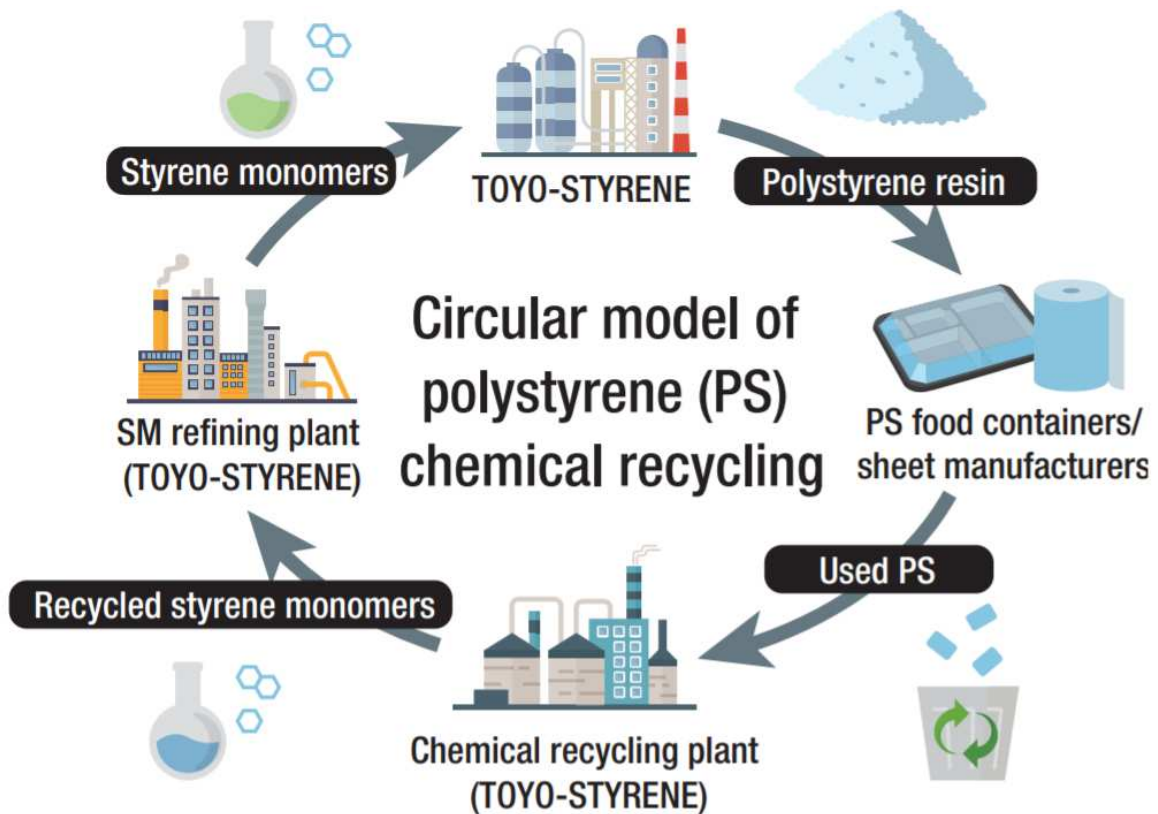
• Investment: Approx. 3.8 billion yen (estimate)

• Processing capacity: Approx. 3,000 tons/year

• Commencement of operation: Second half of FY2023 (scheduled)

* This matter has no impact on consolidated financial results for FY2021.

2. Diagram of the chemical recycling model for polystyrene



About Toyo Styrene Co., Ltd.

Stockholding ratios: Denka: 50%, NIPPON STEEL Chemical & Material Co., Ltd.: 35%, Daicel Corporation: 15%

<http://www.toyo-st.co.jp/>

Reference

“Denka Affiliate Toyo Styrene to Start a Business for Chemical Recycling of Polystyrene Resins” April 13, 2020

https://www.denka.co.jp/eng/storage/news/pdf/278/20200413_denka_ps_chemical_recycle_en.pdf

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