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Toyoda Gosei Develops Glycol Lignin Plastic Using Wood Biomaterial *Replacement of some petroleum-derived material with constituent of Japanese cedar*

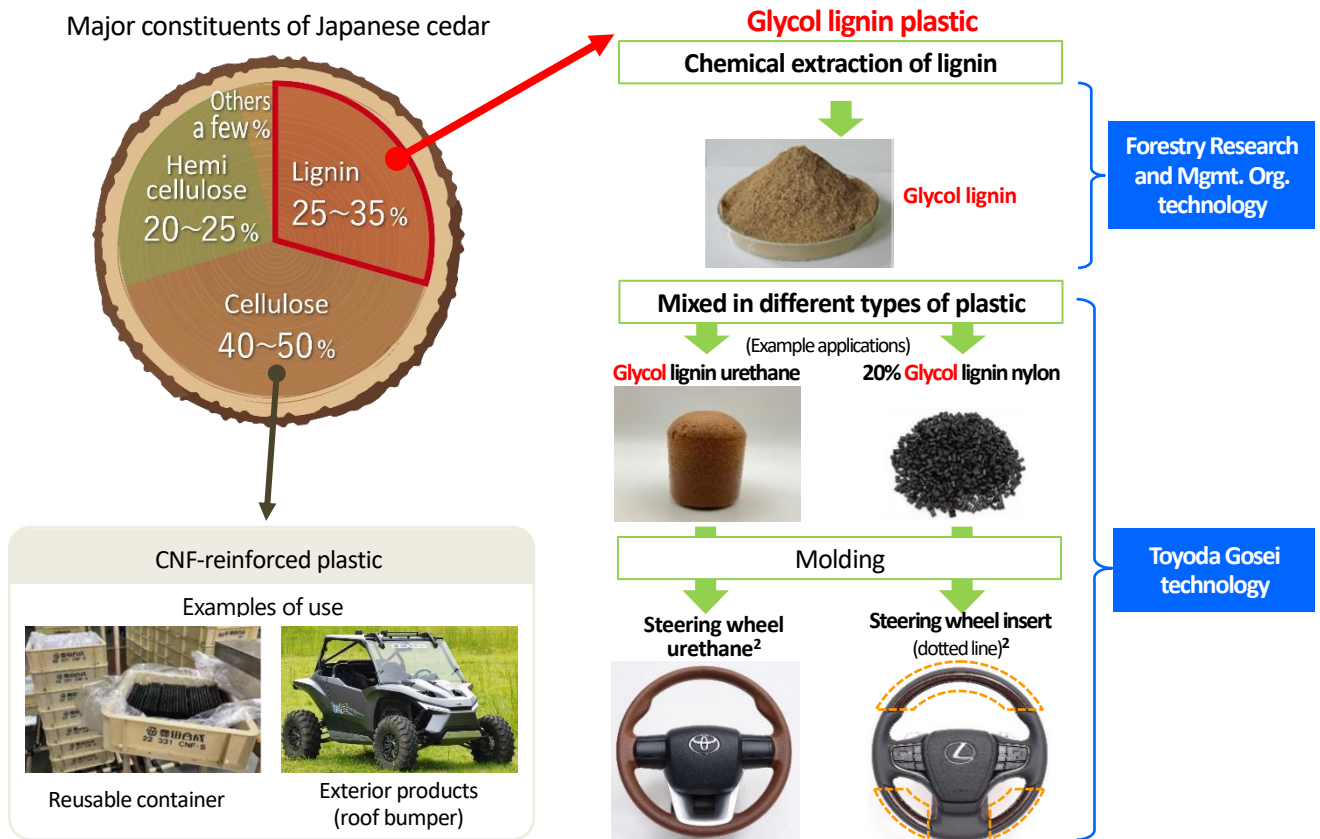
Kiyosu, Japan, May 21, 2024: Toyoda Gosei Co., Ltd. and the Forest Research and Management Organization's Forestry and Forest Products Research Institute have jointly developed¹ a glycol lignin plastic, an environmentally-friendly plastic that includes a constituent of Japanese cedar, a species of tree native to Japan.

As part of its efforts toward decarbonization, Toyoda Gosei is reducing the environmental impact of its plastic and rubber products by mixing plant-derived materials. In the newly-developed plastic, glycol lignin extracted from Japanese cedar is mixed into plastics like urethane and nylon used in automobile steering wheels. Glycol lignin is made through the process in which lignin is chemically extracted from Japanese cedar for use as an industrial material, and has advantages including superior heat resistance and workability. Toyoda Gosei's material technology has enabled to replace some of the petroleum-derived material in plastic products with this glycol lignin. Promotion of use of glycol lignin is a part of efforts for effective use of Japanese cedar, which exists in abundance in all regions of Japan, by enhancing added-value of the wood, and may also contribute to reducing Japanese cedar pollen, which is an allergen.

The company will continue its development efforts with the aim of practical application as steering wheels and other interior and exterior products.

This technology will be shown at the Toyoda Gosei booth at the Automotive Engineering Exposition 2024, which will be held over three days starting on May 22, 2024 at Pacifico Yokohama (Yokohama, Japan).

Toyoda Gosei's efforts to use wood biomaterials



¹ The Forestry and Forest Products Research Institute, a National Research and Development Agency, is a representative institution conducting joint development in the "High Performance Lignin Material Development Consortium," which pursues the realization of decarbonized society.

² Urethane for steering wheels is being developed by Toyoda Gosei, while steering wheel inserts are being jointly developed with Tendo Co., Ltd.