
“Development of Biodegradable Plastics” and “Development of Paper Products with Added Functions” that take the global environment into consideration

Oji Holdings Corporation (“Oji,” Director of the Board/President: Susumu Yajima, Head office: Tokyo) announces that we will accelerate the development of biodegradable plastics that are friendly to the global environment and the development of paper products with added functions.

Oji Group actively engages in afforestation and paper recycling as part of its initiatives to reduce environmental impacts. Also, we own and manage a total of 450,000 hectares of forest land inside and outside of Japan that absorbs some 13.9 million tons of greenhouse gases every year. This is about double the annual greenhouse gas emissions (*1) of the entire Oji Group.

(*1) Total of Scope 1 (direct emissions: greenhouse gases produced from the burning of fuel by the company) and Scope 2 (indirect emissions: greenhouse gases attributed to the use of electricity and steam purchased from outside the company) emissions of consolidated subsidiaries inside and outside of Japan excluding transportation.

Today, there is growing demand around the world for products that can replace plastics, as evidenced by the European Union passing legislation to ban disposable plastics in order to protect marine life and a number of major food service chains in the United States announcing plans to replace plastic containers and straws.

Oji Group has manufactured various base paper for food products, including containers for beverages, yogurts, and ice cream as well as oil resistant containers and paper packaging used at fast food restaurants. The Packaging Innovation Center (established on April 1, 2018) of the Innovation Promotion Division will now take the lead in the development of biodegradable plastics and the development of paper products with added functions, both of which can be used as alternatives to plastics.

1. Development of Biodegradable Plastics

(1) Development of Composite Materials made from Biodegradable Plastic and Pulp, and Provision of Samples

Oji F-TEX Co., Ltd. (“Oji F-TEX”) is developing plastic pellets that combine pulp with polylactic acid (*2), a biodegradable plastic. The use of pulp improves the rigidity of molded products and also improves heat resistance (temperature of thermal deformation). It is also expected to shorten the time it takes for injection molding and to expand the applications of molded products. Currently, Oji F-TEX has begun distributing samples to customers.



Plastic pellets
(Left: Polylactic acid by itself / Right:
Polylactic acid combined with pulp)



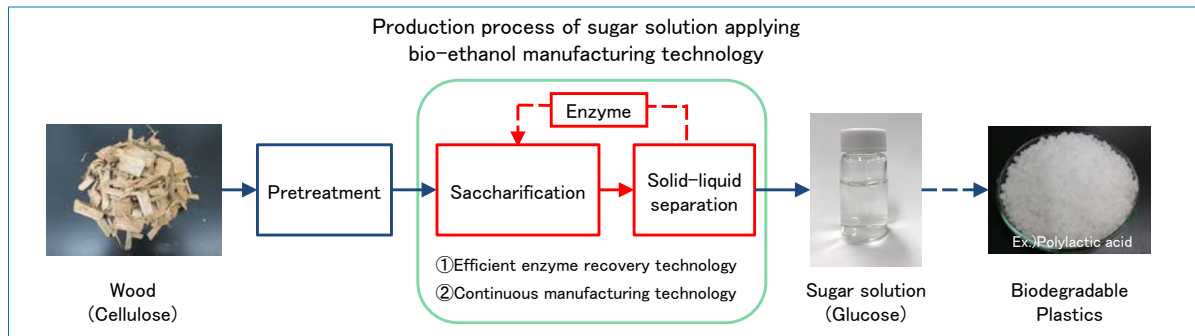
Examples of molded products
(Top: Polylactic acid by itself / Bottom:
Polylactic acid combined with pulp)

(*2) Polylactic acid is a synthetic resin derived from plants that can be recycled by composting.

(2) In-house Development of Raw Materials for Biodegradable Plastics

Conventionally, sugar solution (glucose) used as a raw material for biodegradable plastics has been made from edible biomass, mainly sugar cane and corn. However, the Oji Group has developed a technology for efficiently manufacturing sugar solution (glucose) from wood (cellulose) by applying its elemental technologies (enzyme recovery and continuous production) developed through the production of bio-ethanol.

Going forward, we will develop a mass production system for sugar solution (glucose) and, in the future, aim to develop biodegradable plastics in-house or do it through tie-ups.



2. Development of Paper Products with Added Functions

(1) Development of Packaging Materials with Barrier Properties

Currently, we developed recyclable packaging material to replace packaging materials with plastic barriers with paper. This paper product offers multiple barriers to protect against both water vapor and oxygen. With just paper, this product offers the same high degree of protection against water vapor as general barrier film and against oxygen as deposited film.



Paper Products with Added Functions

(2) Start of Product Development for Paper Cup Traveler Lids and Provision of Samples of Base Paper for Paper Straws

We developed a paper lid made from recyclable and biodegradable pulp given that today plastic lids are the norm. This product is water and heat resistant and can be used as a lid for paper cups for both hot and cold beverages.

In addition, Oji F-TEX has begun distributing usable samples of base paper for paper straws. This base paper is water resistant and ideal for manufacturing paper straws by spiraling.



Paper Cup Traveler Lids

[Contact]

Oji Holdings Corporation Email: infomail@oji-gr.com
Public Relations and Investor Relations Department Corporate Governance Division
TEL: +81-3-3563-4523