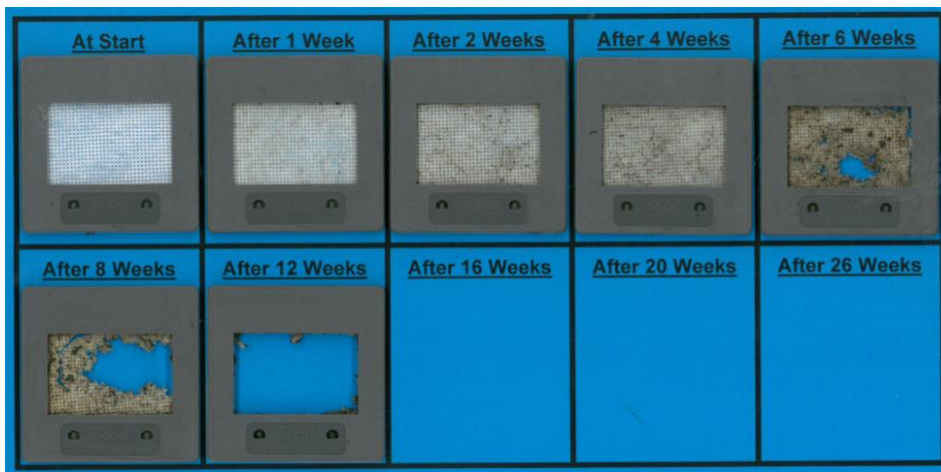


Mitsui Chemicals Asahi Life Materials Develops Spunbond Nonwoven Suitable for Home Composting

Mitsui Chemicals Asahi Life Materials Co., Ltd. (Tokyo; President: YANASE Koichi) has developed a spunbond nonwoven using a biodegradable plastic suitable for composting in domestic settings. The move comes in response to increasing global demand for home composting.

Mitsui Chemicals Asahi Life Materials intends to establish the production setup for regular and thermoformable grades of this nonwoven before the end of 2024. Applications being eyed cover a wide variety of industrial fields, including beverage filters and packaging materials that come into contact with food, along with agricultural materials.

The newly developed biodegradable plastic's key feature is its capacity to decompose in a home composting environment at a temperature of around 28 degrees Celsius.



Results of a preliminary disintegration test in a home composting environment
(28 degrees Celsius)

■ Biodegradable plastic

Biodegradable plastic has all the durability of ordinary plastic, but is broken down after use into water and carbon dioxide via the action of microorganisms found in nature. The material is attracting increasing attention due to the potential for its widespread use to reduce the environmental impact of plastic. Different biodegradable plastics are able to break down in compost, soil, water and other such environments, so each biodegradable plastic is categorized according to the specific environment in which it decomposes.

■ Home composting

Composting uses the power of fungi and other microorganisms to break down organic waste. Amid growing awareness of composting as a mechanism for turning kitchen waste, fallen leaves and more into fertilizer, concern about environmental issues is driving increased interest in the practice, especially in Western countries.

Biodegradable plastic composting includes “industrial composting”, which takes place at high temperatures in urban waste disposal facilities; and “home composting”, which takes place in ordinary household settings.

Mitsui Chemicals Asahi Life Materials intends to continue developing materials designed with eco-friendliness in mind, and aims to see such materials adopted in as many industries as possible.

■ Development of eco-friendly materials by Mitsui Chemicals Asahi Life Materials

Mitsui Chemicals Asahi Life Materials offers ECORISE™, a range of environmentally friendly spunbond nonwovens made primarily from polylactic acid (PLA), a plant-derived biodegradable plastic. Able to decompose and be composted under industrial composting conditions, ECORISE™ meets standards* laid out by a number of domestic and foreign certification bodies, including the U.S.-based BPI, Austrian-based TÜV AUSTRIA (via its certification center in Belgium) and Japanese-based JBPA. This has seen the material receive certifications such as BiodegradablePla and BiomassPla.

The ability to bestow ECORISE™ with diverse properties – including high uniformity, breathability, flexibility and press molding compatibility – has seen it meet with high praise in a wide range of applications, from food packaging materials used in tea and coffee filters through to agricultural and industrial materials.

Reference

ECORISE™ PLA Spunbond Nonwoven Selected for Use in Yonex Tennis Racquet Packaging
(Press release dated January 18, 2024)

https://jp.mitsuichemicals.com/en/release/2024/2024_0118_2/index.htm

*BPI Certification: A biodegradability certification system managed by the U.S.-based Biodegradable Products Institute (BPI)

OK compost: A biodegradable plastic certification scheme managed by the Belgian-based certification center of Austrian testing, inspection and certification company TÜV AUSTRIA

BiodegradablePla (registration number 1174): A certification scheme managed by the Japan BioPlastics Association (JBPA)

BiomassPla (registration number 603): A certification scheme managed by the Japan BioPlastics Association (JBPA)

■ Company overview

Established in October 2023 following a joint incorporation-type demerger for the nonwovens businesses of Mitsui Chemicals, Inc. and Asahi Kasei Corporation, this new JV began business in the same month, and aims to be a leader in the global nonwovens market as it capitalizes on its excellent technological strength to respond to social needs.

By combining the technologies and expertise of its two parent companies – which have been providing unique products since the early 1970s across a wide range of fields spanning hygiene materials through to industrial materials and lifestyle materials – this new JV aims to maximize its synergies. The company intends to use nonwovens products to offer solutions essential to everyday life, helping in turn to solve social issues and increase people’s quality of life.

Company	Mitsui Chemicals Asahi Life Materials Co., Ltd.
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name			
Address	Tokyo Midtown Yaesu, Yaesu Central Tower, 2-2-1 Yaesu, Chuo-ku, Tokyo 104-0028		
Establishment	October 2, 2023	Representative	YANASE Koichi
Capital	500 million yen	Shareholders	Mitsui Chemicals: 60.62% Asahi Kasei: 39.38%

[Mitsui Chemicals Asahi Life Materials Co., Ltd. homepage](#)

For sample requests and inquiries about the home-compostable spunbond nonwoven, please contact:

Industrial Materials Sales Department 2 / Industrial Materials Sales Division

[Inquiry form](#)