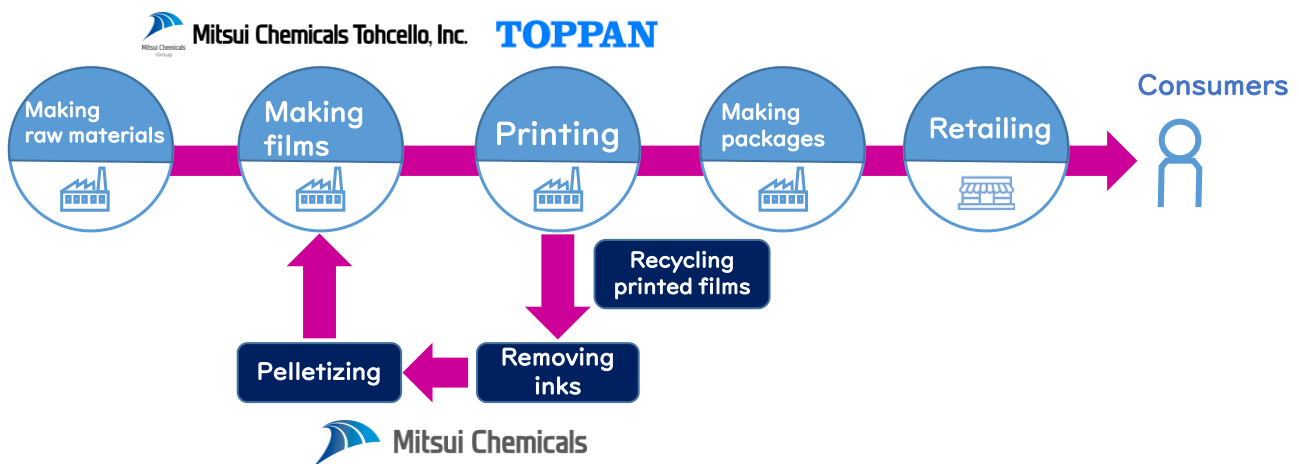


Joint Pilot Testing Launches for Horizontal Recycling of Flexible Packaging Film

Removing the printing from printed BOPP flexible packaging film and horizontally recycling it into new BOPP flexible packaging film

Tokyo - August 2, 2023 - Toppan (Tokyo: 7911), Mitsui Chemicals Tohcello and Mitsui Chemicals (Tokyo: 4183) have announced the launch of pilot testing this month for horizontally recycling printed BOPP film back into new flexible packaging film.

Through this joint pilot testing initiative, the three companies aim to establish technologies and operational infrastructure for the horizontal recycling of flexible packaging materials, as well as leverage network growth in the flexible packaging materials industry to advance and expand the horizontal recycling of flexible packaging film.



■ Background

The Japanese Government's Resource Circulation Strategy for Plastics includes a target of transitioning to reusable or recyclable plastic designs by 2025. Milestones under the strategy for 2030 include that 60 percent of plastic containers and packaging should be reused or recycled, and that the recycling of plastic resources should be doubled. With 2025 as an important starting point toward those milestones, it will be essential to expand efforts for reuse and recycling on the way to 2030.

In May 2022, Mitsui Chemicals launched RePLAYER™ Renewable Plastics Layer System, an initiative that aims to recover film waste from flexible packaging material converters, remove any ink from it, turn the remaining material into pellets and turn those pellets into new flexible packaging film. Then in December 2022, Toppan, Mitsui Chemicals Tohcello and Mitsui Chemicals began discussing the basis of the joint pilot testing announced today.

Fiscal 2023 now marks the beginning of full-fledged joint pilot testing, with BOPP film waste – generated by Toppan from processes such as printing adjustment – being recovered by Mitsui Chemicals, which also removes the film waste’s printing and converts it into pellets that are in turn made into recycled BOPP film by Mitsui Chemicals Tohcello. Toppan is also evaluating the recycled BOPP film’s quality, with a particular eye toward its suitability for the likes of printing, lamination, and the creation and filling of flexible pouches. The lamination process here makes use of eco-friendly adhesive from Mitsui Chemicals.

Through this initiative, the three companies aim to have this technology implemented in society by fiscal 2025 in line with the milestone laid out by the Ministry of the Environment’s Resource Circulation Strategy for Plastics.

■ Role of each company

	Mitsui Chemicals	Mitsui Chemicals Tohcello	Toppan
Strength	Polypropylene resin expertise (for resin composition, modification, measurement and analysis technology, etc.)	BOPP film production technology	Converting technology (including recycled film expertise), as well as the ability to roll out downstream offerings
Role	Recovering used film, removing printing from that film, turning it into recycled pellets and providing quality control	Producing recycled film and providing quality control	Supplying used BOPP, converting the recycled film, and running sales and marketing

Reference: RePLAYER™ dedicated site

<https://jp.mitsuichemicals.com/en/sustainability/beplayer-replayer/replayer/>

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- * The information provided in this press release is current as of the date of publication and may be subject to change at a later date without notice.

■ About Toppan

Established in Tokyo in 1900, Toppan is a leading and diversified global provider committed to delivering sustainable, integrated solutions in fields including printing, communications, security, packaging, décor materials, electronics, and digital transformation. Toppan’s global team of more than 50,000 employees offers optimal solutions enabled by industry-leading expertise and technologies to address the diverse challenges of every business sector and society and contribute to the achievement of shared sustainability goals.

For more information, visit <https://www.toppan.com/en/> or follow Toppan on LinkedIn <https://www.linkedin.com/company/toppan/>.

■ Mitsui Chemicals Web site : <https://jp.mitsuichemicals.com/en/index.htm>

■ Mitsui Chemicals Tohcello Web site : <https://www.mc-tohcello.co.jp/english/>