

Launch of Demonstration Sales for Traceable Recycled Plastic Materials Using Resource Circulation Platform

Aimed shift toward becoming a recycling-based society through digital transformation

ISHIZUKA CHEMICAL SANGYO CO.,LTD (Tokyo; President: ISHIZUKA Katsuichi) is set to launch sales of traceable recycled plastics this February in the form of polymethyl methacrylate (PMMA) and polycarbonate (PC) resins, going about this by using the resource circulation platform that Mitsui Chemicals, Inc. (Tokyo; President & CEO: HASHIMOTO Osamu) and IBM Japan, Ltd. (Tokyo; President: YAMAGUCHI Akio) have been developing since April 2021 with advanced security in the form of blockchain technology. Used goods to serve as raw materials for this recycling will be collected and broken down by Tsuruoka Co.,Ltd. (Yuki, Ibaraki; President: TSURUOKA Masaaki), with ISHIZUKA CHEMICAL SANGYO then carrying out the production and sale of recycled plastics.

Amid growing calls for a recycling-based economy, the issue of ensuring traceability has come about for recycled plastic materials, including details on the likes of what substances these materials contain. By using the platform set up by Mitsui Chemicals and IBM Japan, this demonstration sales project will not only be able to ensure the traceability of recycled plastic materials; it will also be able to visualize things such as production processes, inspection processes, physical information, quality information and CO2 emissions reference values, making it a groundbreaking initiative. Going forward, the platform will continue to be used in pursuit of a recycling-based economy through collaboration with both current platform participants and new participants on a series of demonstration testing for other products in aim of real-world implementation.

■ Overview of recycled plastic material sales

- Products to be sold: PMMA and PC resins
- Sale launch date: February 1, 2022
- Distributor: ISHIZUKA CHEMICAL SANGYO

■ Comments from those participating in the resource circulation platform

ISHIZUKA Katsuichi, President, ISHIZUKA CHEMICAL SANGYO:

“Since Japan approved the Act on Promotion of Resource Circulation for Plastics last year, we’ve seen an increase in inquiries for plastic recycling. However, much of that has taken the form of consultations about recycling in-house products; we haven’t yet had many consultations from players wanting to use recycled plastics.”

“As for why that is, perhaps these players have concerns about the quality or safety of recycled materials due to not having used them before, or they aren’t sure how these contribute to carbon neutrality. Consequently, we have determined that if we are able to sell recycled materials that clear up those concerns and uncertainties, we could help to popularize recycled materials more broadly. With the Japanese government aiming to double the presence of recycled materials by 2030 – and the Act on Promotion of Resource Circulation for Plastics set to come into effect this April – ISHIZUKA CHEMICAL SANGYO, as a long-time player in plastic recycling, feels a duty to popularize recycled plastic materials. Further, we believe that bringing traceable recycled materials on board will aid in our push for popularization here.”

TSURUOKA Masaaki, President, Tsuruoka:

“Due to the difficulties of eco-friendly design, used goods that meet the needs of traceable recycled plastics are still rather scarce in society. Being an intermediate processing company that collects and breaks down used goods to serve as a key point in safe, secure and stable recycled material supply, Tsuruoka intends to make the most of business under the new platform, which enables the creation of cross-sector partnerships to improve product life cycles. We will use this business to expand the scope of the recycled raw materials we handle, as well as to try and get these materials popularized across other companies in the same industry, as we look to invigorate the market.”

SAMBE Masao, Executive Officer, Digital Transformation Division, Mitsui Chemicals:

“We are very pleased to see that Tsuruoka and ISHIZUKA CHEMICAL SANGYO have been able to jointly use our platform for the sale of recycled plastics in an effort to move toward a recycling-based society. Mitsui Chemicals itself is endeavoring to use digital technologies to transition from business models based on materials supply to those based on solving social issues, and this will include leveraging plastic resource circulation to maximize our environmental contribution value.

“We look forward to having more users utilize our platform, and will endeavor to keep up a leading role on constructing this platform for resource circulation.”

SHIBATA Yuichiro, Managing Partner, Strategic Sales, IBM Consulting, IBM Japan:

“IBM Japan aims to bring about a circular economy and reach net-zero greenhouse gas emissions. With these goals in mind, we have taken on the assorted experience and skills we have built up to date and used these as a basis to support the construction of this resource circulation platform, as well as the calculation of CO2 emissions from plastic recycling.

“Following this latest agreement, we are thrilled to see that a proper traceability-based platform will be put in place and facilitate the start of recycled plastic sales in an effort to bring about a recycling-based society.

“Going forward, IBM Japan will continue to leverage cutting-edge technologies – including not

only the blockchain but also the likes of our Cloud, OpenShift and AI technologies – as we pursue Good Tech worldwide to create a better future. And we will continue to work with customers on making a sustainable society a reality.”

**Related video on resource circulation platform: https://youtu.be/ZFu_qooSIWk

*Blockchain technology is a form of immutable database technology that records all historical information in a continuous chain. Since all parties involved have access and there is no potential for data falsification, the technology achieves traceability by allowing all parties to follow up and see where, when and from whom various raw materials, products and more were acquired.

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