

February 14, 2022

Paper Cups turn into Compost!
Partnership with Gamba Osaka to Launch Recycling System Verification Trial
—Let's Contribute to Recycling while Providing Support at the Soccer Stadium! —

Mitsubishi Chemical Corporation

Mitsubishi Chemical Corporation (MCC; Head office: Chiyoda-ku, Tokyo; President: Masayuki Waga) is collaborating with Gamba Osaka, a Japanese soccer club, to implement a verification test as a step toward realizing a recycling system using compost derived from paper cups made from MCC's BioPBS™ (manufactured by PTT MCC) compostable material.

In this verification test, MCC will supply around 100,000 paper cups made from MCC's BioPBS™ compostable material. The paper cups will be used for drinks sold at Panasonic Stadium Suita during Gamba Osaka's J1 league (the top division of the Japan Professional Football League) home games in 2022.

The used paper cups will then be collected, and the cups, along with any food and other residue, will undergo a primary fermentation using composting facilities set up at the stadium. After undergoing secondary and tertiary fermentation at a composting depot, the preliminary fermented mash will be turned into compost that can be used to cultivate agricultural products. The verification test for this paper-cup circularity will be carried out through the 2022 season.



Paper cup recycling system



“G-smile cups” used at the stadium

This initiative will be implemented as a part of activities to promote plastic resource recycling under the Osaka Plastic Measures Platform, which is also being partaken in by Suita City. The platform was installed in August 2021 in accordance with the Osaka Declaration toward Zero Plastic Waste, declared by the

Osaka Prefectural Government in January 2019.

MCC aims to contribute to the realization of a circular economy by actively building recycling and composting systems in collaboration with various companies and municipalities.

▼ Companies and organizations participating in this verification test (listed in random order)

Osaka Prefecture, Suita City and GAMBA OSAKA Co., Ltd.

▼ Companies collaborating with MCC in this project (listed in random order)

Kyokuyo Co., Ltd., Nihon Matai Co., Ltd., Toyo Aluminium Ekco Products Co., Ltd., HP Japan Inc., K.K.MARUTAKA Ltd. and Shingi Co., Ltd

(Reference)

BioPBS™ is a plant-derived biodegradable material developed by Mitsubishi Chemical, which owns the basic patent, and manufactured by PTT MCC Biochem Company Limited, which is a fifty-fifty joint venture of Mitsubishi Chemical and PTT Global Chemical of Thailand. These resin materials have minimal impact on the natural environment as they are decomposed into water and carbon dioxide by microorganisms in nature. In addition, BioPBS™ shows excellent performance in low temperature heat sealability, heat resistance, and flexibility compared to other biodegradable resins.

Typically, the inside of paper cups is laminated with polyethylene, a non-biodegradable plastic, for water resistance. By using BioPBS™ as a laminate material, the entire paper cup can be decomposed in a composting facility or in soil.

< Composting process at the compost facilities >



When composter
is turned on



After 2 hours



After 24 hours



After 4 days

Contact

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