

December 19, 2019

KANEKA CORPORATION

Completion of Kaneka Biodegradable Polymer PHBH™ Plant  
with annual production of 5,000 tons

Kaneka Corporation (Headquarters: Minato-ku, Tokyo; President: Mamoru Kadokura) completed construction to increase production capacity of Kaneka Biodegradable Polymer PHBH™ (referred to below as PHBH™), on schedule at the Takasago Manufacturing Site (Hyogo Prefecture in Japan), and held a construction completion ceremony on December 17<sup>th</sup>, 2019. With an investment of approximately 2.5 billion yen\*<sup>1</sup>, production capacity was increased to around 5,000 tons per annum, a five-fold increase from before.

In recent years, marine pollution caused by microplastics has become a global social issue due to its impact on the ecosystem. PHBH™, a 100% plant-derived biopolymer developed by Kaneka Corporation has attained the “OK Biodegradable MARINE”<sup>\*2</sup> certificate, verifying that it biodegrades in seawater, and is expected to contribute to reducing marine pollution. PHBH™ has also been put on the positive list of the United States’ Food and Drug Administration<sup>\*3</sup> (FDA), the Japan Hygienic Olefin and Styrene Plastics Association<sup>\*4</sup>, and the European Commission<sup>\*5</sup>, and there are a growing number of countries and regions where it can be used for food contact application.

In Europe, various regulations for reducing single-use plastics are being reinforced, and especially in France regulations have tightened as of January 2020, offering good prospects for rapid sales growth of PHBH™. In Japan, the use of straws made from PHBH™ for Seven Eleven’s “Seven Cafe” began from November 2019 in around 10,000 Seven Eleven convenience stores across the country, and also joint-development of cosmetics bottles is currently underway with Shiseido Co., Ltd. On top of this, a wide range of uses are being considered with many global brand holders such as straws, shopping bags, cutlery, and material for food packaging. The 5,000 tons/year plant is expected to begin running at full capacity from its early stages.

A decision to construct an even larger full-scale mass production plant is expected soon in order to respond to anticipated future increases in global-scale demand.

Based on our mission of “Kaneka thinks Wellness First”, Kaneka will continue to offer value to the world as a solutions provider.

\*1 Kaneka issued a green bond (environmental bond) in September, 2019 with the purpose of procuring funding for PHBH™-related manufacturing facilities and research and development. The aim was 5 billion yen, and it was the first industrial bond to be issued by a Japanese chemical company.

- \*2. Biodegrades at least 90% in seawater (30°C) within 6 months. The“OK Biodegradable MARINE”certificate was issued to PHBH™ in September 2017 by Vincotte, an international certifying body headquartered in Belgium. TÜV AUSTRIA Belgium NV took over the certification work from Vincotte in December 2017.
- \*3. A governmental organization of U.S. in charge of approval or conformity control of products which consumers have contact within daily life, such as food or medicine in addition to cosmetics, clinical instrument, animal drug or toy.
- \*4. An industry group in Japan that aims to realize the supply of safe and hygienic plastic utensils, containers and packaging for use with food.
- \*5. It is an institution of the European Union (EU), responsible for management of the EU including proposal of the legislation and implementation of decisions.



The completed new fermenter