

## Denka Develops “PLATIECO®”, an Eco-friendly Sustainable Plastic — Containing Naturally-derived Eggshell to Contribute to the Reduction of Plastic Use and Greenhouse Gases —



“PLATIECO®”, sustainable plastic containing naturally-derived eggshell

Denka Company Limited (headquarters: Chuo-ku, Tokyo; President: Toshio Imai; hereinafter, “Denka”) has developed the “PLATIECO®” eco-friendly sustainable plastic that combines naturally-derived eggshell and styrene copolymer, a type of plastic. PLATIECO® is praised as a product contributing to the reduction of plastic use and greenhouse gas emissions, and it has been used in a series of plastic GUNDAM models, commonly called “GUNPLA.” The product will be exhibited at Converting Technology Exhibition 2023 (neo functional materials) to be held in Tokyo Big Sight from Wednesday, February 1 to Friday, February 3.

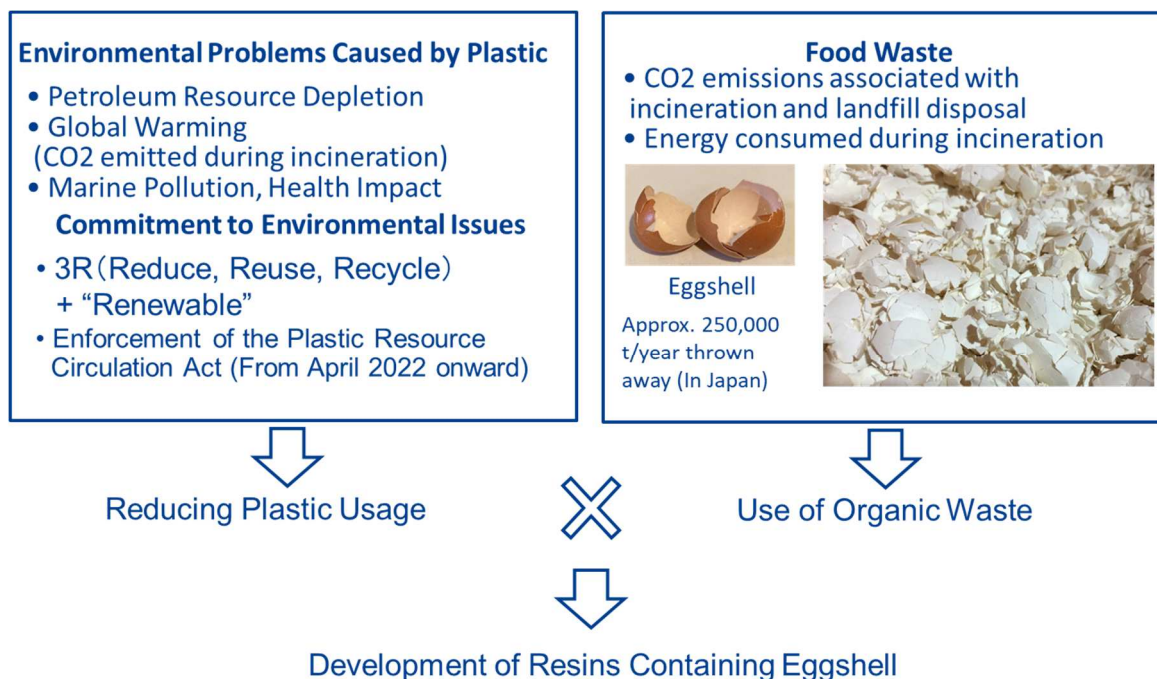


GUNPLA using PLATIECO®, “ENTRY GRADE 1/144 RX-78-2 GUNDAM [Classic color]”  
(Manufactured: BANDAI SPIRITS CO., LTD.) (C) SOTSU • SUNRISE

Denka Group manufactures and supplies functional polystyrene resin products boasting great versatility through its proprietary Styrene Chain.\*<sup>1</sup> While installing chemical recycling equipment for styrene copolymer aiming at the goal of achieving carbon neutrality by FY2050, Denka has been advancing the development of environmentally friendly products towards the establishment of a sustainable society. Under the concept of

reducing the use of plastics and utilizing organic waste, eggshell which is normally incinerated and disposed of as a food industrial waste is combined with styrene copolymer to reduce the energy used and contribute to a reduction of environmental burdens.

— **Background Leading to Development and Concept** —



Boasting both the same durability and formability as the existing PS resin, PLATIECO<sup>®</sup> was developed by employing a proprietary technology that makes it possible for the resin to contain over 50 wt%\*2 of eggshell. Denka will contribute to the overall reduction in society’s CO<sub>2</sub> emissions through improvements including the combination of materials with ABS resins and the effective use of other natural ingredients such as cellulose, aiming to develop a wider range of applications in the future, including applications for daily essentials, food packages, home appliances and automobile parts, in addition to toys.

Denka continues to contribute to people’s lives and the society through its world-renowned chemistry for the purpose of “Make the world a better place as specialists in chemistry.”

\*1. For more information about Denka’s Styrene Chain, please visit the link below to see the PR magazine “The Denka Way”.

PR magazine The Denka Way 2021 Autumn, — The Styrene Chain Begins Here —

[https://www.denka.co.jp/eng/pdf/corporate/thedenkaway/thedenkaway\\_2021\\_autumn.pdf](https://www.denka.co.jp/eng/pdf/corporate/thedenkaway/thedenkaway_2021_autumn.pdf)

\*2. wt% (weight percent)

Unit representing concentration by weight

(Ex: 50wt% indicates the mixing of 50g of eggshell into 50g of PS resin)

[For Inquiries from Media]  
Corporate Communications Dept. Tel: +81-3-5290-5511  
[For Inquiries from Customers]  
New Business Incubation Dept., New Business Development (Tel: +81-3-5290-5570)