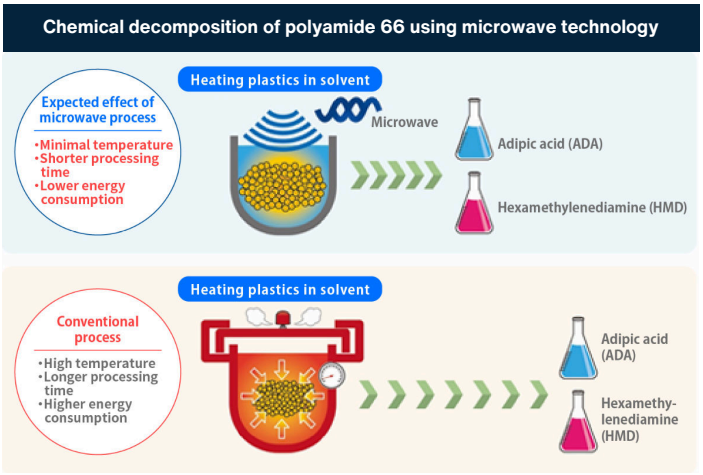
AsahiKASEI

Novel Recycling Technologies for Polyamide 66

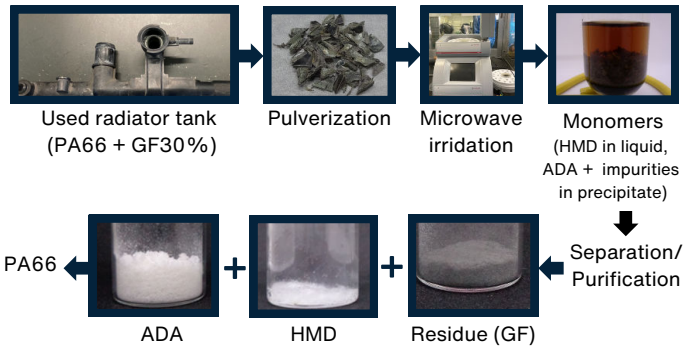
Expected to reduce CFP by over 50%

Chemical Recycling of Monomers

Together with partner Microwave Chemical Co., Ltd., Asahi Kasei is currently developing a microwave-based chemical recycling process for PA66, allowing the extraction of high-quality HMD and ADA from post-consumer and pre-consumer PA66. This implies that new PA66 can be produced from these monomers without significant material deterioration.

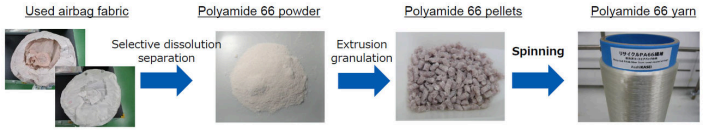


Internal studies show that any type of product mainly made from PA66, specifically compounds with GF, airbags, or radiator tanks can be depolymerized to HMD and ADA in high qualities.



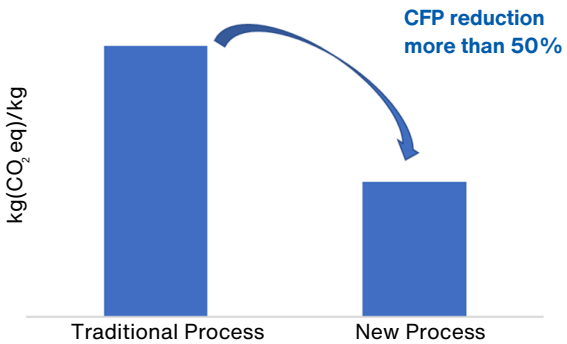
Selective Dissolution Recycling

In parallel, Asahi Kasei is developing a high-quality PA66 recycling process that separates and recovers polymers from process scraps and used waste materials, like airbags, by using solvents. With this process, PA66 can be separated from other polymers such as PA6 or PET.



Sustainability

With both processes a significant CFP reduction can be achieved in the manufacturing process of PA66 compared to utilizing fossil-based materials.



※ CFP of new process is roughly estimated through laboratory-scale studies.

Creating for Tomorrow

Asahi Kasei Europe GmbH
Fringsstrasse 17
40221 Düsseldorf
Germany

Email: info@asahi-kasei.eu
Tel: +49 (0) 211-3399-2058
Web: www.asahi-kasei.eu

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