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Toyobo promotes global use of its aluminum catalyst technology through polymerization technology licensing contract with world's largest PET producer, Indorama Ventures Pcl

Toyobo has signed a licensing contract pertaining to a specific polymerization technology and its patents with Thailand-based Indorama Ventures Public Company Limited, the world's largest polyethylene terephthalate (PET) manufacturer – and Iwatani Corporation, a Tokyo-based sales agent.

This June, Indorama Ventures started full-scale production of PET resin using TOYOBO GS Catalyst[®], an aluminum catalyst developed by Toyobo.

1. TOYOBO GS Catalyst[®]: an eco-friendly catalyst

PET resin production requires raw materials and a catalyst to facilitate polymerization reactions. Conventionally, a heavy metal or rare metal compound, such as antimony or germanium, has been typically used as a catalyst.

TOYOBO GS Catalyst[®] was independently developed in 2002 and uses neither heavy metals nor rare metals – precious natural resources that globally are in short supply. Furthermore, the aluminum catalyzed PET resin is easy to recycle, contributing to a reduction of the environmental load generated by human activities.

The TOYOBO GS Catalyst[®] technology will be used globally through the licensing agreement with Indorama Ventures, which has production hubs worldwide.

2. Benefit of PET resins made with TOYOBO GS Catalyst[®]

1) Excellent transparency, thermal stability and recyclability: the resin can be used for PET bottles, films, sheets, fibers, molded items and a wide range of other products.

2) Excellent water-resistance and weather-resistance: the resin is used for Toyobo's SHINEBEAM[®], backsheet film for solar batteries.



TOYOBO GS Catalyst[®] resins
(left foreground)

3. Future strategies

Indorama Ventures has started manufacturing PET resin with TOYOBO GS Catalyst® for beverage bottles for Suntory Holdings Limited products.

Toyobo has reinforced its business partnership with Indorama Ventures and Iwatani to spread TOYOBO GS Catalyst® technology worldwide. Iwatani will serve as a sales agent for Indorama Ventures, selling the resin produced by the Thai company for food and beverage bottles, general-use film, and sheet products.

Toyobo will make a contribution to a reduction of the environmental load by promoting the global use of TOYOBO GS Catalyst®.



Suntory beverage bottles that use PET resins made with GS Catalyst®

Toyobo has long maintained a cooperative relationship with Indorama Ventures in the production of textiles. In 2014, Toyobo and Indorama Ventures jointly acquired PHP Fibers GmbH, a Germany-based manufacturer of filament yarns for airbags. Toyobo and Indorama Ventures have also forged alliances in various other sectors.

Indorama Ventures Public Company Limited

(Indorama Polymers Public Company Limited)

Headquarters: Bangkok, Thailand

CEO: D. K. Agarwal

Iwatani Corporation

Headquarters: Minato-ku, Tokyo

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