

March 19, 2019
Mitsui Chemicals, Inc.

Mitsui Chemicals Receives The Chemical Society of Japan Award for Technical Development for ExfolTM Praise received for product's unique structure, catalyst design

Mitsui Chemicals, Inc. (Tokyo: 4183; President & CEO: Tsutomu Tannowa) today announced that it has received the Chemical Society of Japan Award for Technical Development for 2018, presented on March 17.

The specific award given to Mitsui Chemicals is used to highlight accomplishments that have shown particularly remarkable creativity and results relating to technology in the Japanese chemical industry.

In receiving this award, Mitsui Chemicals has been acknowledged for utilizing its proprietary catalyst and synthesis technologies to create ExfolTM, a novel block copolymer in which polyolefin and silicone are bonded together. The award also acknowledges its accomplishment in commercializing ExfolTM as a polyolefin surface modifier. As an additive for polyolefins, ExfolTM is able to grant the characteristics of silicone resin, a material that has low affinity with polyolefins.

Manufacturing and sales subsidiary Mitsui Fine Chemicals, Inc. (President Kensaku Takahashi) played a central role in cultivating applications and customers for ExfolTM on the way to commercialization the newly developed polymer .



From left:
Naoki Tomoshige
Naoshi Nagai
Dr. Maki Kawai
President, the Chemical Society of Japan
Akihiro Okabe
Sadahiko Matsuura

■ Outline of the Award

Award name	The Chemical Society of Japan Award for Technical Development		
Achievement	Development of Novel Polyolefin–silicone Block Copolymer (Exfol TM)		
Recipients	Akihiro Okabe Naoki Tomoshige Naoshi Nagai Sadahiko Matsuura Tamotsu Harada	Senior researcher Senior researcher Senior researcher Senior researcher	Process Technology Laboratory Process Technology Laboratory Functional Materials Laboratory Process Technology Laboratory Mitsui Chemicals America, Inc.

By adding a small amount of Exfola™ to polyolefin materials during molding, the resulting products' surface shows the beneficial characteristics of silicone resin, for example, release characteristics, water and oil repellency, and wear resistance. The new additive thus resolves issues seen with conventional silicone-based modifiers, such as bleed-out, poor compatibility with polyolefins, and deterioration in moldability.

Exfola™ is seeing use in the likes of optical films for LCD panels, protective films for residential building materials and dirt-resistant sheets. Applications are also expected in food packaging that allows little food to remain on its surface, giving high hopes that the material will help to cut down on food loss as well.

Mitsui Chemicals furthermore aims to make broad contributions to society by accelerating the development of further applications for Exfola™, focusing here on the health care sector.

The CSJ's award for chemical technologies (Japanese only) : <http://www.chemistry.or.jp/news/information/30-6.html>