

June 4, 2018

Mitsui Chemicals, Inc.

## **Mitsui Chemicals Receives SRIJ Award for FORTIMO™**

**Awarded for development of highly elastic cycloaliphatic polyurethane elastomer**

Mitsui Chemicals, Inc. (Tokyo: 4183; President & CEO: Tsutomu Tannowa) on May 30 received the SRIJ Award from the Society of Rubber Science and Technology, Japan (SRIJ; President: Toshikazu Takata) for its development of FORTIMO™, a world-first cycloaliphatic polyurethane elastomer with high elasticity.

- Name of award: 30th SRIJ Award
- Awarded research: Development of a new, highly elastic cycloaliphatic polyurethane elastomer Mitsui Chemicals, Inc.
- Prizewinners: Mitsui Chemicals, Inc.
  - Satoshi Yamasaki
    - Specialty Polyurethane Materials Development Director,  
Coatings & Engineering Materials Division,  
Food & Packaging Business Sector
    - Visiting professor at Kyushu University
  - Daisuke Hasegawa
    - Synthetic Chemicals Laboratory, R&D Center  
Kyushu University
  - Ken Kojio
    - Associate Professor



From left: Toshikazu Takata of SRIJ, Daisuke Hasegawa of MCI, Ken Kojio of Kyushu University Associate Professor, Satoshi Yamasaki of MCI

Product name	FORTIMO™
Product description	New cycloaliphatic diisocyanate 1,4-H <sub>6</sub> XDI and the polyurethane material made using this
Characteristics	1. High elasticity, high durability, high heat resistance, non-yellowing 2. Makes for quicker molding with polyurethane elastomers (thermoplastic polyurethane, thermoset polyurethane)
Main applications	Automotive-use elastomer materials; elastic fibers and other clothing materials; medical tubes; highly durable industrial parts, etc.

Polyurethane is frequently used in coatings, adhesives, sealants, elastomers and more. But with conventional polyurethane products requiring a choice of either non-yellowing characteristics or high elasticity and heat resistance, the market has been waiting for the development of a new material able to unite these characteristics.

In 2014, Mitsui Chemicals succeeded in developing FORTIMO™, the world's first material of its kind to be not only highly elastic and heat resistant but also non-yellowing. While molding processes for conventional polyurethane require processing within organic solvent to give the material its heat resistance, FORTIMO™ offers satisfactory heat resistance in and of itself, making organic solvent free in the molding process as well. It is also the first such material to bring together heat resistance and environmental friendliness, which has proven difficult with other polyurethane products.

The material is already seeing commercial use in comfortable yet tough frames for sunglasses, as well as in tennis racket strings and wearable bands. Going forward, Mitsui Chemicals aims to use FORTIMO™ for further contributions to society by accelerating the development of new uses with a focus on its Mobility, Health Care and Food & Packaging business sectors.

■ For more information on FORTIMO™, please visit:

<https://www.mitsuichem.com/en/service/packaging/coatings/fortimo/index.htm>