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Mitsui Chemicals, Inc.

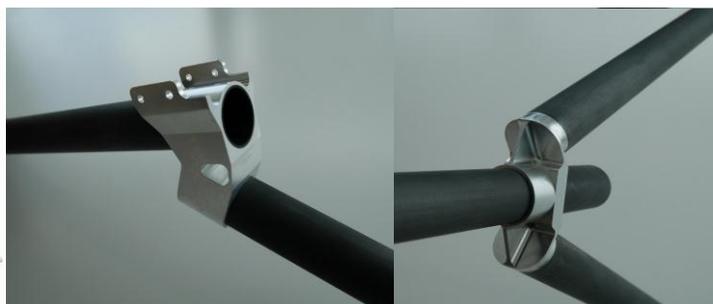
## **Mitsui Chemicals POLYMETAC™ to be Used in Lightweight Frames of New Autonomous Unmanned Aerial Vehicles**

**~Lightweight and reduction of the number of parts lead to simple structure using metal resin integrally molded technology~**

Mitsui Chemicals Inc. (Tokyo:4183; President & CEO: Tsutomu Tannowa) announced that the Group's unique metal resin integral technology, POLYMETAC™ has been selected for use in the frames of new autonomous unmanned aerial vehicles which are currently being developed by Aerosense Inc. (Tokyo; CEO: Hisashi Taniguchi), a joint venture of Sony Mobile Communications Inc. and ZMP Inc.



(Wing span 2,169mm× length 1,579mm× height 594mm)



(CFRP and aluminum joint parts using POLYMETAC™ technology )

POLYMETAC™ is Mitsui Chemicals' completely new technology for strong adhesion and bonding of various metals and resins that was not possible using conventional methods. Out of Mitsui Chemicals' numerous lightweight solutions, POLYMETAC™ cuts weight and helps to reduce the number of parts and steps in the manufacturing processes as well. It is a completely new technology that provides totally new hybrid solutions.

Mitsui Chemicals provides Aerosense with hybrid product of carbon fiber reinforced plastic (CFRP) and aluminum joint parts made by its POLYMETAC™ technology and provides full support in shaping and designing the parts which will be used in the frame of aerial vehicle.

The new joint parts greatly enhance the structural rigidity of aerial vehicles while significantly reducing weight and providing simpler designs by eliminating the need for fasteners such as bolts.

“Our autonomous unmanned aerial vehicles provide solutions to various industrial needs. It is important that we are able to provide greater flight distances and improved performance by reducing weight and the number of parts while ensuring durability and strength of our aerial

vehicles, " says Hisashi Taniguchi, CEO of Aerosense. "Mitsui Chemicals' POLYMETAC™ technology makes it possible to extend flight distance by 40% providing our customers with greater added value."

"POLYMETAC™ allows adhesion and bonding of various metals and resins, and for the current project, CFRP and aluminum parts were integrated by its technology," says Akio Hirahara, General Manager of Mitsui Chemicals' New Market Development (Automotive Materials) Division. "Mitsui Chemicals used its cutting edge simulation technology to design simple joint shapes with a single part which were originally composed of approximately 20 pieces. The technology contributes to a 50% weight reduction of joint parts while improving rigidity."

Mitsui Chemicals will continue to pursue new uses and development of POLYMETAC™ technology for state-of-the-art lightweight solutions in automotive and electrical applications.

◆Outline of Aerosense Inc.

Company name	Aerosense Inc.
Head office	5-41-10 Koishikawa, Bunkyo-ku, Tokyo, Japan
Establishment	August 2015
Stated capital	100 million yen
Capital reserve	100 million yen
Investment ratio	Sony Mobile Communications Inc. : 50.005% ZMP Inc. : 49.995%
Business	Development, manufacture, and sale of industrial solutions using autonomous unmanned aerial vehicles for image capture combined with cloud-based data processing.