

NEWS RELEASE

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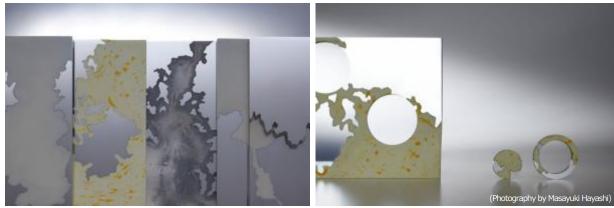
January 10, 2017 Mitsui Chemicals, Inc.

Material Meets Creative Team Project which is collaborations with creators taking on the challenges of materials

"Deposition" with POLYMETACTM and TAKT PROJECT

 \sim Discovering the appeal of the material for creating new customer value \sim

Mitsui Chemicals, Inc. (Tokyo: 4183; President & CEO: Tsutomu Tannowa) announced the *Material Meets Creative Team* Project, which is a project featuring collaborations with creators to clearly communicate the appeal of materials from unprecedented perspectives.



(Left) Plate material providing a macroscopic view of the bonding principle in POLYMETAC™ technology (Right) A ring produced by punching POLYMETAC™ plate material as a new material

It is a "Deposition" created from a combination of POLYMETACTM, metal and resin integration technology, and the TAKT PROJECT.

POLYMETAC[™] is Mitsui Chemicals' latest solution. It is characterized by performing special treatment of a metal, creating fine pores in nanometer and micrometer order and pouring resin into the pores for strong physical adhesion and bonding of various metals and resins that was not possible using conventional methods, and for satisfying needs to reduce weight and manufacturing processes. With injection molding and casting, it is capable of producing integrated components with a high level of adhesive strength without using adhesives.

However, POLYMETAC[™] treatment technology is so fine – on the order of nanometers and micrometers – that the principle of bonding is invisible to human eyes. Providing a macroscopic view of the surface conditions in which the principle of bonding can be observed, the "Deposition" itself is a successful representation of a new material with appeal that

inspires creation. The integration between metal and resin produces a change in the center of gravity, conductivity and punchability based on the strong adhesion. These features are expressed with lighting and ring-shaped products.





(Photo) A lighting product that takes advantage of the conductivity of the metal part and the change in the center of gravity using multi-material integration

♦ POLYMETACTM

Today, there is demand to reduce weight and manufacturing processes in the automobile and electronic equipment sectors. Accordingly, multi-material integration is on the rise. Mitsui Chemicals' POLYMETACTM is a metal and resin integration technology that attains the strong adhesion and bonding of metals and resins that was not possible with conventional methods. It is Mitsui Chemicals' latest solution that responds to needs for the reduction of both weight and manufacturing processes. Its introduction will help provide greater additional value, such as the enhancement of sound insulation and design, and it will pave the way for proposing composite solutions.

Mitsui Chemicals is working on the development and expansion of applications to propose new forms of components and new manufacturing approaches using POLYMETAC TM with a view to enriching people's lives.







◆TAKT PROJECT (http://taktproject.com/whoweare)



Satoshi Yoshiizumi, principal, TAKT PROJECT

Co-founded TAKT PROJECT Inc. in 2013.

Carries out various projects for *Creating Other Possibilities* under the slogan of *DESIGN THINK+DO TANK*. Voluntarily or in response to invitations, exhibits experimental works as well as works ordered by clients at the *Salone del Mobile and other events and* has won a Red Dot Design Award, Good Design Awards and many more.

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