

To the media:

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Sekisui Plastics Develops TECHPOLYMER™ Hollow Particle

Sekisui Plastics Co., Ltd. (Head Office: 2-4-4 Nishi-tenma, Kita-ku, Osaka, Japan; President: Masato Kashiwabara) is pleased to announce that it has successfully developed TECHPOLYMER NH, a nano-sized hollow polymer particle.

1. Background

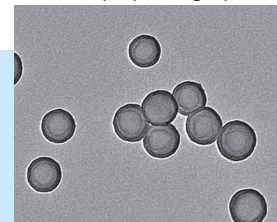
TECHPOLYMER is a polymer particle born from unique polymerization technology of Sekisui Plastics. Making full use of its characteristics, it has been used in a variety of applications, such as light diffusion materials, matting agents and smooth-feeling improvement.

Demand for reducing external reflections of lights has increased in recent years for flat-panel TVs, PCs and automobile components (GPS display and other dashboard display). As an additive that can obtain anti-reflection effects, we developed TECHPOLYMER NH, a hollow polymer nanoparticle seen nowhere else in the world.

2. Features of TECHPOLYMER NH

1. Since the particle size is nano and uniform, high transparency can be expected even in thin films.
2. Since its specific gravity is lighter than that of inorganic hollow particles, less amount delivers higher performance.
3. It mixes well with coating resins and organic solvents, and has excellent dispersibility.
4. Compared to inorganic hollow-particle coating films, it delivers tough coating which does not cause cracks easily while applying to curved surface or stamping.

Transmission electron microscope photograph

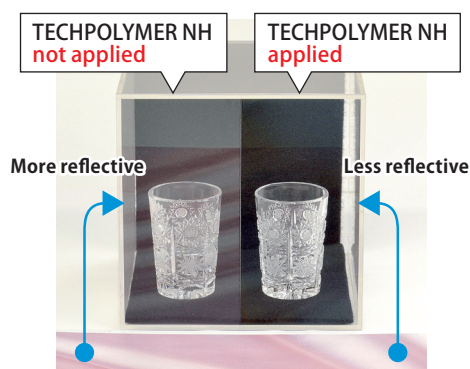


Physical property

Mean particle size: 60 to 100 nm
Hollowness: 30 to 40%

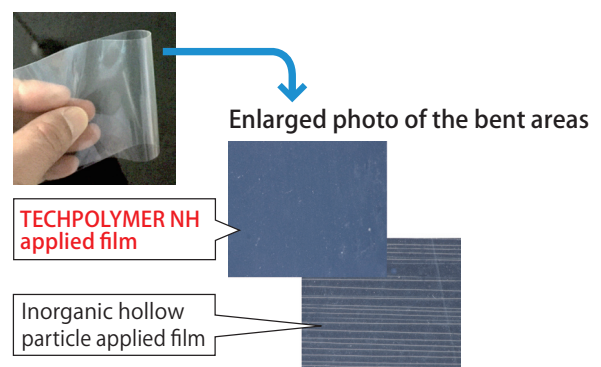
■Reflection comparison

Placed a transparent acrylic board in the front and compared



■Coating film strength comparison

Bent coated films and compare their cracks.



3. Future Development

(1) **Sales plan** : 36 million JPY (FY2018) / 600 million JPY (FY2020)

(2) **Anticipated Fields / Applications**

Going beyond conventional optical material and paint uses, we will develop its business in the automobile component fields. Since Techpolymer NH, having hollow structure, can be applied as thermal insulation materials and low dielectric constant materials, we will develop applications for the electronic materials and housing fields.