

To the media:

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Sekisui Plastics Co., Ltd.

Investor and Public Relations Department

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Established mass production technology of heat-resistant foams ST-Eleveat_™

Sekisui Plastics Co., Ltd.'s (Head Office: 2-4-4 Nishi-tenma, Kita-ku, Osaka, Japan; President: Masato Kashiwabara) moves forward with development of foam plastics made of engineering plastics / super-engineering plastics, as a brand name "ST-Eleveat". And just established mass production technology of heat-resistant 120°C bead foam.

1. Background

From the viewpoint of energy saving and CO2 emission reduction, weight reduction of structural components in automotive / transportation sector has been progressed by replacing from steels to plastics, or by utilizing CFRP, etc.

However, bead foams are not used at high temperature location such as engine room inside etc. because the heat resistance of conventional bead foams is around 80 $^{\circ}$ C. to 100 $^{\circ}$ C.

In response to the demand for high heat resistance, high strength and light weight plastic materials that can be applied to structural components, Sekisui Plastics has worked on the development of foams that meet the heat resistance in the range of 120 to 200°C.

And this time Sekisui Plastics has established mass production technology of 120°C heat resistant grade as a first product of "ST-Eleveat" brand.



2. Feature

- · Heat-resistance: Dimensional shrinkage rate is 1% or less under conditions of 120°C x 168 hrs.
- · Flame retardance : Meet the standard of FMVSS302
- · Light weight: 80% to 90% lighter compare with parts made of non-expanded plastic.
- Moldability: Moldable by conventional molding machines for "Piocelan" or EPP. No special machine is required. The small bead particles enable to make product with complex shapes.
- Environment : An expansion ratio is 5 to 10 times, so the resin usage is only 10 to 20% comparable to non-expanded plastic product. This means "ST-Eleveat" is an eco-friendly product which contributes to resource conservation.

3. Future development

Sekisui Plastics is planning to launch other grade with heat resistance more than 120 °C.

In addition, Sekisui Plastics will move forward global market development and aim for sales of 80 million US\$ in 2023 year as "ST-Eleveat" brand family.

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