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Sekisui Plastics Co., Ltd.

Investor and Public Relations Department

Odakyu Dai-Ichi-Life Bldg. 2-7-1 Nishi-Shinjuku, Shinjuku-ku, Tokyo 163-0727, Japan TEL: +81-(0)3-3347-9711 E-mail: m01271@sekisuiplastics.co.jp

Sekisui Plastics developed ST-Eleveat_{TM} **PLANT-BASED** grade.

Sekisui Plastics Co., Ltd. (Head office: 2-4-4 Nishitenma, Kita-ku, Osaka-shi, President: Masato Kashiwabara) has developed ST-Eleveat™ PLANT-BASED grade, a high heat resistant and light weight foamed plastics contributing to a sustainable society.

1. Background

"ST-Eleveat" is a foam with engineering plastic and super-engineering plastic as its main raw materials, and it is especial suited for use in high-temperature environments. Progress has been made in recent years in making structural components lighter in the automotive and transportation sector by means such as replacing to plastic and utilizing CFRP from a perspective of energy saving and CO₂ emission reduction. "ST-Eleveat" was developed in order to achieve highly heat-resistant and strong and lightweight structural materials that can be used at high temperature location such as engine room inside etc., which was difficult with existing products.

This time, "ST-Eleveat" BIO was developed by applying plant-based materials to the "ST-Eleveat" series of high heat resistant and light weight foamed plastics, taking into account market demands for products that contribute to environmental preservation. We succeeded in establishing a new grade of "ST-Eleveat" by replacing petroleum-based raw materials with renewable plant-based resources and applying foaming technologies.



ST-Eleveat_™



Application example (automobile engine cover)

2. Features of "ST-Eleveat" BIO

Plant-based raw materials are applied, so the product has a small environmental burden, being carbon neutral and not increasing CO₂ levels.

- 1. Heat-resistance : Dimensional shrinkage rate is 1% or less under conditions of 180°C×168 hrs.
- 2. Flame retardancy : Meet the standard of "V-2" in UL94 standard flammability tests.
- : 80% to 90% lighter compare with parts made of non-expanded plastic. 3. Light weight
- 4. 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. To be an "Environmental Leading Company"

To be an "Environmental Leading Company", Sekisui Plastics promotes "SKG-5R" activities that includes 2R (REPLACE, RE-CREATE) in addition to 3R activities (REDUCE, REUSE, RECYCLE) that we actively put all our effort into. "ST-Eleveat" BIO is one of our developments in "RE-PLACE" activity, one example of replacing from petroleum-based materials to sustainable plant-based materials. From now on, we will increase the proportion of plant-based raw materials and actively develop environmentally friendly products.

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