

**News Release** 

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An engineer working for SEKISUI KASEI CO., LTD. (Head Office: 2-4-4 Nishi-tenma, Kita-ku, Osaka; President: Masato Kashiwabara) has received the "Noboru Ichinose Award" from the Electronic Ceramic Process Meeting for our trace heater and applied products using barium titanate-based PTC thermistors as contributing to process technology of electronic ceramic products.

# Awarded the "Noboru Ichinose Award" from the Electronic Ceramic Process Meeting for the Development of Barium Titanate-based PTC Heater Technology

## 1. Summary

The "Noboru Ichinose Award" was established by the Electronic Ceramic Process Meeting\* to honor engineers and researchers who have contributed to the process technology of electronic ceramic products. Our employee has received the "Noboru Ichinose Award" for his achievements in the research, development, and commercialization of "TECHEATER," a trace heater that applies barium titanate-based PTC thermistors.

### Details of the award

"Development and commercialization of trace heaters and applied products using barium titanate-based PTC thermistors"

#### Award recipient

Tetsuo Yamaguchi Industrial Materials Business Division, 2nd Business HQ.

#### Summary of achievements

By combining the PTC effect of semiconducting barium titanate with plastic thermal insulation material, he has developed a long, flexible, self-output-controlled heater that could not be realized with conventional resin-based PTC heaters.



"TECHEATER," heater can be used for snow melting, freeze protection, temperature control, and other applications.

> 170 (W/m<sup>2</sup>)

165

160

155

150

145

140

11

Electric energy



Commemorative lecture

Electric

energy

Ambient

temperaturé

41

51

Relationship between ambient temperature and electric energy (example of our measured values)

31

Time (hr)

21

## 2. Development history

TECHEATER is the world's first heater product that uses semiconductor ceramics as the heating element. In order to solve problems such as the difficulty of following curved surfaces with conventional resin-based PTC heaters, with conventional resin-based PTC heaters, we succeeded in developing a long and flexible heater by incorporating barium titanate-based PTC ceramics into a ladder-type wire and coating it with resin.



Sales plan: 1 billion yen in FY2027

Against the backdrop of social demands for safety and security, we will provide the world with products that can realize labor and energy savings and solve social problems, thereby appealing to private and public demand and expanding sales.

\*Electronic Ceramic Process Meeting URL : http://elecerapm.com/index.php

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temperature

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30

20

10

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