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SEKISUI KASEI CO., LTD. (Head Office: 2-4-4 Nishi-tenma, Kita-ku, Osaka, Japan; President: Masato Kashiwabara) has developed a high-performance gel material, "ST-gel ORgrade," which is suitable for long-term application to the skin and responds to strong market demand.

## Development of a New Gel Material Suitable for Long-Term Application in Moist Environments

### 1. Background of the Development

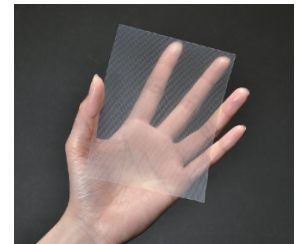
Until now, we have offered a variety of skin-friendly grades of hydrogels as part of its lineup of highly functional gel materials, "ST-gel." These hydrogels retain solvents and electrolytes, such as water and moisturizers, providing superior conductivity. As a result, they are widely used as an interface between the measurement area and the skin, such as in electrocardiogram electrodes for medical use and low-frequency therapeutic pads for healthcare.

However, because hydrogels are susceptible to moisture, there has been a growing need in recent years for new gel materials that can be applied continuously in various environments, such as during exercise and bathing with perspiration, and for long-term real-time sensing.

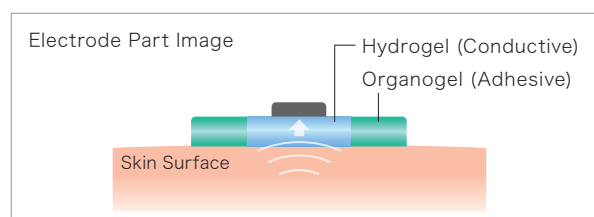
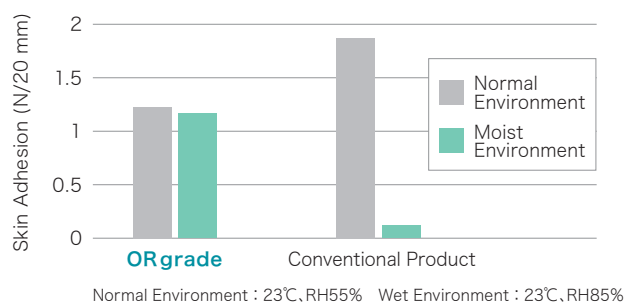
### 2. Features

The developed "ST-gel OR grade" is a water-free organogel that maintains skin adhesion even under moist conditions, allowing continuous application over extended periods. This gel material meets the criteria for biocompatibility assessment based on ISO 10993 and has been confirmed to be safe.

In addition, a composite technology with conductive hydrogels has been developed, enabling its use as an electrode component for biosensing. This allows safe and reliable long-term monitoring of biological signals.



- A water-free organogel enables continuous long-term application even in moist environments.
- The material meets the criteria for biocompatibility assessment based on ISO 10993 and has been confirmed to be safe.
- Through composite technology with hydrogel, it enables long-term monitoring as an electrode component for biosensing applications.



### 3. Future Development

Sales Plan : ¥1 billion in FY2030

Envisioned Fields and Applications : Biosensing applications, as well as general medical and healthcare fields

"ST-gel OR grade" is being developed for long-term sensing applications, which are expected to see market expansion. It is also intended for use in environments where water or sweat may be present, such as during exercise or in highly humid conditions.

In the future, we will propose electrodes and fabricated products tailored to the specific applications, usage environments, and needs of our clients. Additionally, we will work to expand our product lineup to support a wide range of scenarios—not limited to application on living organisms.