Sumitomo Riko to Exhibit at the Automotive Engineering Exposition 2023

- Exhibiting products in the “Sensing”, “Thermal Management” and “Hydrogen Device” fields relating to CASE –

Sumitomo Riko Company Limited (Headquarters: Nakamura-ku, Nagoya-shi; President & CEO: Kazushi Shimizu) will exhibit at a joint booth together with Sumitomo Electric Industries, Ltd. (Chuo-ku, Osaka-shi) and Sumitomo Wiring System, Ltd. (Yokkaichi-shi, Mie Prefecture) at the Automotive Engineering Exposition 2023 to be held at PACIFICO Yokohama (Nishi-ku, Yokohama) from May 24 (Wed) and Aichi Sky Expo (Tokoname-shi, Aichi) from July 5 (Wed).

As the auto industry enters a period of major change, including the increase of electric vehicles (EV) and the acceleration of initiatives for “CASE*” to promote the advancement of technology for self-driving cars, Sumitomo Riko is actively engaged in the R&D of new products and materials utilizing our core competence, polymer materials technology and comprehensive evaluation technology.

At this exhibition, we will exhibit products of the Sumitomo Riko Group with a particular emphasis on “C: Connected”, “A: Autonomous” and “E: Electric”.

---

*CASE* refers to the four key areas identified by the automotive industry: Connectivity, Autonomous Driving, Sharing, and Electric Vehicles.
In the sensor field, we will exhibit a “Vital Sensor System”, as a product to contribute to “Connected” and “Autonomous”.

In the thermal management field, we will show the “Film reflecting and insulating against heat: Finesulight”, “Highly Transparent Thermal Shielding and Insulation Film: Refleshine”, and the “Heat Insulation for Battery Cells” as products to contribute to “Electric”. And in the hydrogen device field, we plan to show the ”Fuel Cell Gasket”.

*「C : Connected」「A : Autonomous」「S : Shared & Services」「E : Electric」

**Exhibition Details**

<table>
<thead>
<tr>
<th>Exhibition Name</th>
<th>Automotive Engineering Exposition 2023 YOKOHAMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yokohama Exhibition Dates</td>
<td>May 24 (Wed) – May 26 (Fri)</td>
</tr>
<tr>
<td>Yokohama Exhibition Venue</td>
<td>PACIFICO Yokohama</td>
</tr>
<tr>
<td>Booth No.</td>
<td>163</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exhibition Name</th>
<th>Automotive Engineering Exposition 2023 NAGOYA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nagoya Exhibition Dates</td>
<td>July 5 (Wed) – July 7 (Fri)</td>
</tr>
<tr>
<td>Nagoya Exhibition Venue</td>
<td>Aichi Sky Expo</td>
</tr>
<tr>
<td>Booth No.</td>
<td>120</td>
</tr>
</tbody>
</table>

**Overview of exhibited products**

**C : Connected, A : Autonomous**

**>> Vital Sensor System (seat-integrated type)**

Made into the shape of a cushion, our independently developed sensor is installed into the surface of the driver’s seat to detect the driver’s heart rate, breathing, body motion and other factors based on changes in pressure on the seat. The system estimates drowsiness, fatigue and other conditions from the observed data and can connect to services such as passenger emergency response, supervised driving support or fatigue management.
E : Electric

**High Performance Heat Insulation “Finesulight”**

Utilizing polymer materials technology, we made a high-heat insulating filler (silica aerogel) containing nanopores small enough to block the passage of air, into a coating liquid. Then, by coating base materials such as non-woven fabric and molded resin, this can achieve high-heat insulation properties at a level of still air or higher. As mobility moves toward electric vehicles (EVs), this product improves air-conditioning in the vehicle and enables longer cruising distance through the suppression of electricity consumption.

**Film reflecting and insulating against heat: Refleshine**

For building use, Refleshine blocks (thermal shielding) heat (UV) from interiors while maintaining a high level of transparency, and in winter, it keeps (insulation) interiors warm (far-infrared rays). This shielding and insulation function increases comfort and saves energy by reducing the use of air-conditioning. For automobile use, Refleshine ensures visibility when driving and its insulation function controls the absorption of heat (UV) and enhances in-vehicle comfort.

**Heat Insulation for Battery Cells**

We have improved the Finesulight compound bonder technology and developed an insulator for lithium-ion batteries in electric vehicles (EV) which can withstand high temperatures of several hundred degrees Celsius. It suppresses heat chains from developing between adjacent cells in the case of extraordinary heat surges and avoids major incidents which can cause fires in the vehicle. We aim to optimize this insulator by making further adjustments to the insulation performance, hardness and other factors in line with customer requirements.
**Fuel Cell Gasket (first time exhibited)**

Toyota Motors FCV: Supplied for the new Mirai, our rubber seal “cell gasket” forms part of the fuel cell gasket comprised of a plate-shaped separator and power generator and prevents hydrogen, oxygen and water from leaking. The FC stack consists of 330 cells, and each cell is equipped with our product. Furthermore, the fuel cell gasket is a highly effective seal for temperatures ranging from subzero to 100°C or higher. It also enables FCEVs to stay safer for longer and generate power more efficiently.