

FOR IMMEDIATE RELEASE:

HEAT-SHRINKABLE SILICONE RUBBER TUBING SOLUTION:

SHIN-ETSU CHEMICAL DEVELOPS INDUSTRY'S FIRST HEAT-SHRINKABLE SILICONE BUSBAR INSULATION COVERING FOR HIGH VOLTAGE EV/HEV BUSBAR APPLICATIONS.

Akron, OH—March 2025

Shin-Etsu Chemical Co. Ltd. (Head Offices: Tokyo, President, Yasuhiko Saitoh) is the largest chemical company in Japan—producing over 5,000 different silicone products worldwide. Along with its U.S. subsidiary Shin-Etsu Silicones of America, Inc. (SESA), the company will be showcasing their industry first ST-OR Type heat-shrinkable silicone rubber tubing for busbar covering at their booth (#412) during the IEEE APEC (Applied Power Electronics Conference) from March 16-20, 2025 (Georgia World Congress Center / Atlanta, GA).

Typically used for power connection or distribution subjected to high currents and high voltages, busbars are protected with tape, tubing, or other insulating parts. In today's evolving electric vehicle (EV) and hybrid electric vehicle (HEV) market sector, busbars must endure even higher voltages and currents—thus requiring insulating parts that provide more advanced properties including superior electrical insulation and heat resistance.

Shin-Etsu Chemical's new ST-OR Type heat-shrinkable silicone rubber tubing for busbar covering meets these requirements with exceptional performance features including:

- High electrical insulating properties inherent in silicone (dielectric strength: 28 kV/mm).
- Outstanding heat and cold resistance, allowing stable performance even in the harshest conditions (operating temperature range: -40°C to $+200^{\circ}\text{C}$).
- Bright orange on the outer surface, making the product suitable for insulative covering of busbars—which can be used as an alternative to high-voltage cables.
- Retention of flexibility typical of silicone rubber even after heat shrinking.
- Availability of ST-TC-1 Type for thermal interface applications. Excels in both thermal conductivity ($1.0\text{ W/m}\cdot\text{K}$) and electrical insulation—suitable for covering a heating part to transfer heat to the casing.

Notably, the ST-OR Type heat-shrinkable silicone rubber tubing easily shrinks when heated. This allows one to readily achieve silicone rubber covering with outstanding electrical insulation and heat resistance—simply by covering an object with the tubing and heating it. Using this tubing for insulative covering of busbars will contribute to higher reliability of power distribution systems, as well as savings in labor and time in busbar production processes.

ST-OR TYPE / SILICONE TUBING CONCLUSION:

With over 70 years of experience manufacturing silicone products, Shin-Etsu Chemical continues to develop and supply high-value-added silicone products based on their accumulated technological capabilities and advanced processes. The new heat-shrinkable silicone rubber tubing is now available worldwide—including the US through their subsidiary Shin-Etsu Silicones of America in Akron, OH.

According to SESA's North America Marketing Manager, Eric Bishop, "Taking advantage of Shin-Etsu Chemical's superior product quality and technological strengths, as well as our detailed customer response system, SESA will continue to strive to meet the needs of demanding, emerging, and diversifying markets like EVs and HEVs. The ST-OR Series insulation covering for these high voltage applications will contribute to a sustainable society."

For more detailed information, visit the Shin-Etsu Chemical Co., Ltd. web site at:

www.shinetsu.co.jp

For more detailed information, visit the Shin-Etsu Silicones of America web site at:

www.shinetsusilicones.com

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CORPORATE PROFILE: A U.S. subsidiary of Shin-Etsu Chemical Co. Ltd., Japan, Shin-Etsu Silicones of America Inc. offers vast technical and capital resources to formulate solutions as a major supplier of silicone materials to North America's medical, automotive, electronics, aerospace, cosmetics, and manufacturing industries. Shin-Etsu's premium silicone compounds incorporate leading-edge technology, staff expertise, and value-added service; offering customers the highest levels of quality and consistency in specialty silicone materials.

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