



Press Release

May 22, 2023

Loctite TLB 9300 APSi is designed to enable high-performance and safe EV battery systems

Henkel launches a new injectable thermally conductive adhesive for EV battery systems

Düsseldorf – As a global leader in automotive adhesives, sealants, thermal materials and functional coatings, Henkel Adhesive Technologies is dedicated to help solve the challenges of OEMs and battery manufacturers to accelerate the transition toward zero-emission mobility. Therefore, Henkel has extended its broad portfolio of solutions for EV battery systems with a first-of-its-kind injectable thermally conductive adhesive. The new adhesive – Loctite TLB 9300 APSi – provides both structural bonding, as well as thermal conductivity in the battery system. The breakthrough product has already been adopted by one of the world's largest EV battery manufacturers.

Designed for applications such as bonding battery cells to modules, or bonding cells directly to cooling systems, Loctite TLB 9300 APSi is a two-component polyurethane thermally conductive adhesive with a high thermal conductivity of 3 W/mK, moderate viscosity, and self-levelling characteristics. In addition to its heat management properties, it delivers a unique combination of good electrical insulation with high bonding performance to a variety of substrates. As a solvent-free solution that cures at room temperature without the need for additional energy consumption, it helps customers advance their sustainability agenda by reducing emissions and resource use, while also ensuring safer working environments.

"Loctite TLB 9300 APSi is a testament to Henkel's continued efforts to innovate new e-mobility solutions tailored to solve today's battery manufacturing challenges and enable the next-generation designs of tomorrow. Its immediate adoption by a major battery manufacturer demonstrates our close partnership with key players in the e-mobility industry to help advance change," said Holger Schuh, Global Senior Manager Thermal Technologies at Henkel.

Loctite TLB 9300 APSi also demonstrates Henkel's deep expertise and experience in the critical area of thermal interface materials for EV battery systems, which are vital to the enablement of safer and higher performing EVs. Due to its precise application, enhanced design flexibility and improved bond strength, the first-of-its-kind injectable thermally conductive adhesive offers the benefits of a simplified manufacturing process.

"Thermal management in EV batteries is still one of the biggest challenges for electrified mobility. New designs targeting higher energy densities in battery packs bring along the requirement for multifunctional thermally conductive adhesives instead of classical thermal gap fillers. Leveraging our strong innovation capabilities at Henkel, we have started to launch a family of materials varying in thermal conductivity, bonding strength, elasticity, and application methods to address those new requirements," says Stephan Hoefer, Global Market Strategy Head for E-Mobility at Henkel.

The trusted partner in a fast-changing automotive industry

Thanks to its strong innovation teams, global footprint, extended network of dispensing equipment partners and close collaboration with OEMs and battery manufacturers, Henkel is solving the industry's biggest challenges with advanced materials and accelerating the transition to zero-emission mobility.

Henkel Adhesive Technologies is the global leader in adhesives, sealants, thermal materials and functional coatings for the automotive industry, providing more than 300 high-impact solutions for automotive OEMs and suppliers. Its automotive components department focuses on addressing challenges with high-impact solutions in the areas of e-mobility, automotive electronics, exterior, conventional powertrain, interior, chassis, surface treatment and cleaners & lubricants. Its goal is to accelerate the transformation in the automotive industry by being a long-term partner to its customers with the broadest solution technology on the market.

About Henkel

With its brands, innovations and technologies, Henkel holds leading market positions worldwide in the industrial and consumer businesses. The Adhesive Technologies business unit is the global leader in the market for adhesives, sealants and functional coatings. With Consumer Brands, the company holds leading positions especially in hair care and laundry & home care in many markets and categories around the world. The company's three strongest brands are Loctite, Persil and Schwarzkopf. In fiscal 2022, Henkel reported sales of more than 22 billion euros and adjusted operating profit of around 2.3 billion euros. Henkel's preferred shares are listed in the German stock index DAX. Sustainability has a long tradition at Henkel, and the company has a clear sustainability strategy with specific targets. Henkel was founded in 1876 and today employs a diverse team of more than 50,000 people worldwide – united by a strong corporate culture, shared values and a common purpose: "Pioneers at heart for the good of generations." More information at www.henkel.com

Photo material is available at www.henkel.com/press

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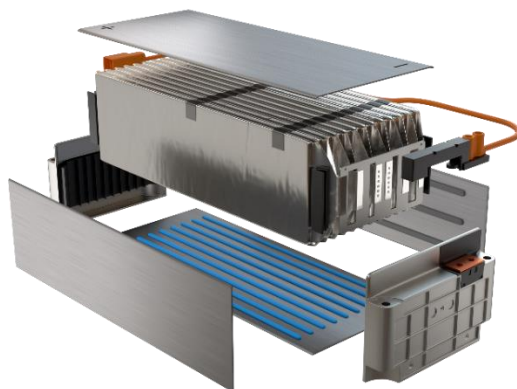
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The following photo material is available:



Illustrative image showing the application of Loctite TLB 9300 APSi between battery cells and the cooling system.



Illustrative image showing the application of Loctite TLB 9300 APSi inside a battery module.