

## Press Release

September 18, 2018

Complete Portfolio of Automotive Materials on Show at Productronica India 2018

# Adhesive and Thermal Solutions from Henkel Driving the Next Generation of Automotive e-**Mobility Ingenuity**

Düsseldorf, Germany - Henkel's leadership in the automotive sector will be on full display in Hall 3, Booth PA27 at the upcoming Productronica India show, taking place from September 26 to 28 at the Bangalore International Exhibition Center. Within the Henkel exhibit, show delegates can learn more about the company's broad range of advanced automotive materials for e-mobility applications, including thermal control and novel adhesive solutions for the battery system and vehicle body.

## Amping up Reliability and Efficiency

The power storage system requires advanced materials to effectively control the heat generated during operation and to keep external pollutants from contaminating the internal battery structure. Henkel's award-winning BERGQUIST brand thermal interface materials (TIMs) are used extensively throughout the lithium-ion (li-ion) battery structure to alleviate the increasing thermal load produced by modern, high BERGQUIST GAP PAD® and SIL PAD® thermal power density li-ion batteries. interface materials are soft, compliant thermally conductive pad-based materials most often incorporated in on-board charging, battery management and inverter systems between heat-generating components and the heat sink or chassis. BERGQUIST Gap Fillers are liquid-based TIMs that are ideal for complex architectures and operations that require high automation and throughput. Applicable to any thermal transfer point within the li-ion battery structure, liquid gap fillers are most frequently employed between battery modules and the housing, between battery cells, as well as on powertrain busbar designs and in power conversion systems.

Throughout their lifetime, electric vehicle batteries are exposed to rain, dust, automotive fluids, and even salt spray in colder climates. Chemicals and particles from these elements can harm battery circuitry, potentially causing failure. Keeping the entire battery system free from contaminants that can impact performance is essential to long life and reliable operation. Here, Henkel's gasketing and sealing

LOCTITE TECHNOMELT BONDERITE. Schwarzkopf Dig + sexyhair. Persil





materials deliver a strong, tight barrier against environmental pollutants. A range of LOCTITE® brand adhesive sealants provide formed-in-place, cured-in-place or molded-in-place capability to protect battery integrity and enhance long-term reliability. Productronica India visitors are invited to view these advanced adhesives in Hall 3, Booth PA27 throughout the three-day event.

## A Lighter, Quieter Ride

The efficiency and range of the battery is not only about li-ion technology, but also highly dependent on the vehicle weight. Lighter vehicles require less power to propel them, which generally translates to longer range capability and extended battery life. As a top innovator of vehicle body assembly materials, Henkel has engineered a complete line of TEROSON® structural inserts that reduce heavy metals in vehicle construction, facilitating a lighter overall structure for greater energy efficiency and crash protection. TEROSON® structural adhesives improve stiffness and durability of connections and enable the use of multiple materials for crossbeams, pillars, joints, longitudinal bars and other planar metals for lighter structures with enhanced safety. As the battery is integrated into the vehicle body, there is a requirement for crash prediction, along with durability and fatigue performance of the entire system. In addition to supplying advanced materials, Henkel's engineering and design teams also provide predictive performance data and aid in the development of lightweight designs.

Advanced damping, sealing and absorbing materials reduce noise and vibration for a quieter driving experience. Henkel's TEROSON® range of NVH products not only block air in the cavity and flanges with baffles and tapes, but also treat structurally-transmitted noise by shifting frequencies and converting kinetic energy into thermal energy with stiffening and damping solutions.

## Learn First-hand from Experts

One of Henkel's top e-mobility experts – particularly in relation to the current thermal challenges imposed by vehicle electrification – will share his insights during the e-automotive summit (www.e-automotivesummit.in). On 26<sup>th</sup> September at 15:00, Mr. Holger Schuh, Henkel EIMEA Business Development Manager for Thermal Management Materials, will deliver a presentation entitled "e-Mobility Solutions – Driving toward a Sustainable Future". The discussion will focus on electronic and structural materials used in automotive manufacture and their impact on e-mobility effectiveness.

In addition to e-mobility solutions, Henkel's automotive specialists can speak to any of the engineering services and more than 100 materials the company is successfully employing in automotive production for ADAS, power conversion, lighting, infotainment, displays, and crash and safety systems, among others. These include: TEROSON® structural solutions, LOCTITE® adhesives, underfills, encapsulants,

coatings and solder materials, TECHNOMELT® low pressure molding and BERGQUIST® thermal management materials.

The Henkel automotive technical team looks forward helping Productronica India visitors with material solutions for next-generation vehicles. For more information, stop by the Henkel exhibit or visit <u>www.henkel.com</u>.

#### About Henkel

Henkel operates globally with a well-balanced and diversified portfolio. The company holds leading positions with its three business units in both industrial and consumer businesses thanks to strong brands, innovations and technologies. Henkel Adhesive Technologies is the global leader in the adhesives market – across all industry segments worldwide. In its Laundry & Home Care and Beauty Care businesses, Henkel holds leading positions in many markets and categories around the world. Founded in 1876, Henkel looks back on more than 140 years of success. In 2017, Henkel reported sales of 22.6 billion US dollars (20 billion euros) and adjusted operating profit of around 3.9 billion US dollars (3.5 billion euros). Combined sales of the respective top brands of the three business units – Loctite®, Schwarzkopf® and Persil® – amounted to 7.2 billion US dollars (6.4 billion euros). Henkel employs more than 53,000 people globally – a passionate and highly diverse team, united by a strong company culture, a common purpose to create sustainable value, and shared values. As a recognized leader in sustainability, Henkel holds top positions in many international indices and rankings. Henkel's preferred shares are listed in the German stock index DAX. For more information, please visit www.henkel.com.

#### Photo material is available at http://www.henkel.com/press.

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