Press Release

January 17, 2022

Select protection and thermal control materials key to rapid expansion of EV infrastructure

Henkel materials improve reliability, safety and cost-effectiveness of electric vehicle chargers

Düsseldorf, Germany – Consumer adoption of electric vehicles (EVs) has grown significantly over the last year alone, representing 26% of new vehicle sales globally, according to industry analyst IDTechEx. As environmental consciousness and sustainability continue to influence buying behavior, EV unit sales are projected to continue on this trajectory and expand as much as 30% through 2030, by some estimates. To ensure this positive, CO_2-reducing trend maintains its steady acceleration, a significantly expanded EV charging infrastructure is required. Central to the production, cost-effectiveness and durability of EV chargers – from Level 1 residential to ultra-fast DC chargers – are materials that enable robust operational performance, component durability and protection from harsh conditions and handling.

Henkel's Justin Kolbe, Director of Market Strategy for Power and Industrial Automation, comments on the need for consumer-friendly access to charging devices. "Charging up needs to be as convenient as fueling up at the pump," he says. "Consumers, while all-in on the benefits of EVs, will only maintain this enthusiasm as long as the ability to use them – for short or long journeys – is made simple and reliable. Expanding the charging infrastructure cost-effectively with dependable systems is key."

For its part, Henkel has designed a select, proven collection of sealing, potting and thermal management solutions that provide the automation-friendly features required for mass production and deployment, along with the in-field attributes of ruggedness, safety and reliability necessary to bolster consumer confidence. Materials in Henkel's EV charging portfolio include:

- **Thermal interface materials for secure safe and reliable operation** – Effectively dissipating heat – whether from 220 Volts or 1,000 Volts – delivers the safety and

long-term performance necessary for EV charging devices. Henkel's trusted Bergquist® brand phase change, GAP PAD and gap filler thermal interface materials (TIMs) help maintain stable operation of EV chargers' power modules and high-density components.

- **Gasketing and sealing to defend against damaging contaminants** – Exposure to changing environmental conditions, moisture and dust can damage sensitive components and reduce their operational life. Henkel sealants and Sonderhoff formed-in-place-foam-gasketing (FIPFG) technology offer customized, mass production solutions to shield internal systems from harmful contaminants.
- **Tough protection with high-performance potting formulations** – As the interface of charging power to the EV battery system, the reliability of charging connectors is critical. Constant plugging and unplugging, rough handling and the potential for vehicle rollover require connector protection solutions that can withstand harsh conditions. Cost-competitive, performance potting materials from Henkel enable complete encapsulation of cables and wires within charging connectors, providing long-lasting durability and defense against moisture ingress for high voltage parts.

Together, Henkel's customized, proven EV charging materials portfolio delivers for both system manufacturers and EV owners, says Kolbe. "With solutions that are easily automated, costs are driven out of the manufacturing process while building reliable, rugged devices that will satisfy consumer expectations for all levels of EV charging devices," he concludes. "In combination with Henkel's global footprint, skilled global technical support team, and a deep understanding of compliance requirements in all regions, our select materials for EV chargers play an integral role in supporting reliable, low-cost, sustainable production and deployment to maintain the EV growth momentum."

Learn more about Henkel's solution portfolio for EV Charging Infrastructure.
Watch a video – EV Charging Infrastructure – Solutions Overview.

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 2020, Henkel reported sales of more than 19 billion euros and adjusted operating profit of about 2.6 billion euros. Henkel employs about 53,000 people globally – a passionate and highly diverse team, united by a strong company culture 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.

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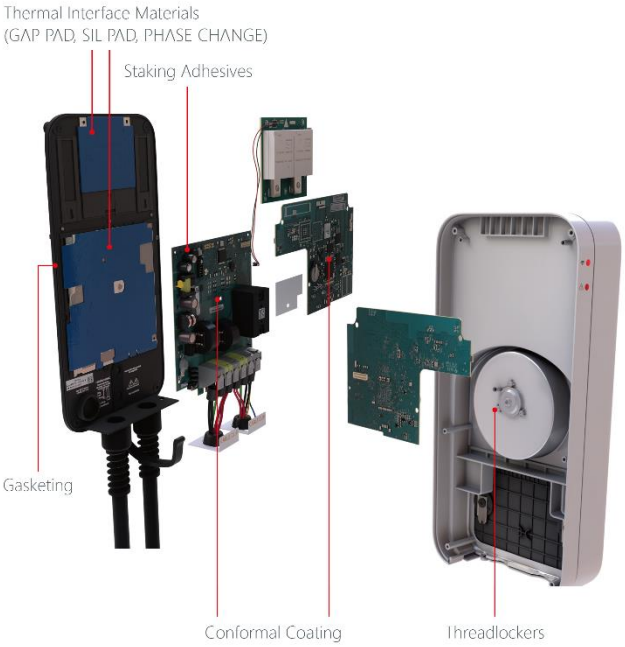
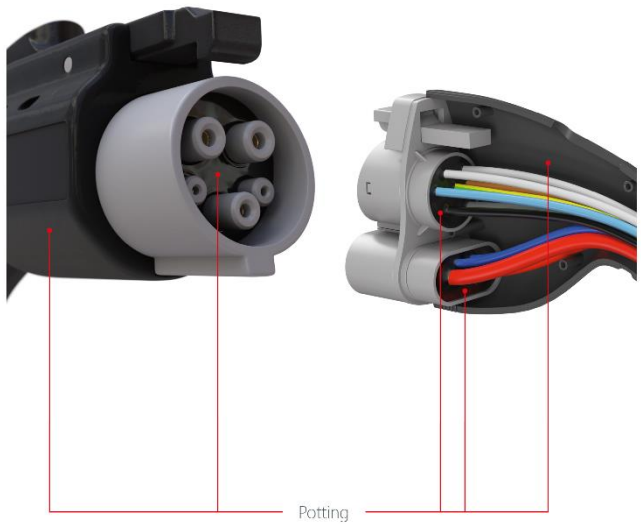
Photo material is available at www.henkel.com/press

Henkel solutions for DC Fast charging Stations



Henkel solutions for AC charging stations



Henkel solutions for charging connectors