

Press Release

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Henkel to spotlight sustainable innovations during Battery Show North America 2024

Driving sustainability, performance and efficiency with material solutions across the battery electric vehicle lifecycle

Madison Heights, MI – Battery and Battery Electric Vehicle manufacturers across the automotive industry have significant carbon reduction targets in place, with the goal of achieving carbon neutrality or even carbon negativity in the coming years. Meeting those targets means reducing Scope 1, 2 and 3 emissions put in place by the Greenhouse Gas Protocol.

At this year's 2024 Battery Show North America, Henkel (Booth #2618) will showcase material solutions that enable its OEM and battery manufacturer customers to reduce impact across all emissions categories, while improving battery performance, safety, cost and process efficiency.

Conductive coatings for dry battery cell manufacturing

Lithium-ion battery production generally relies on solvent-based slurries, which requires energy- and cost-intensive process steps, including drying ovens and solvent recovery/recycling. Henkel's latest conductive coating provides strong adhesion between battery electrode current collectors and dry active material film, enabling battery manufacturers to implement dry battery electrode processing.

Dry battery electrode processing offers numerous advantages, including:

- Reduce energy demand by up to 25 percent
- Potential to reduce electrode production floor space by 60 percent
- Comply with regulatory measures limiting chemicals of concern
- Enable higher energy densities through thicker electrodes

Learn more during our Product Showcase, taking place Tuesday, Oct. 8 at 3:30 p.m. at Henkel booth #2618.







Chromium-free etch passivation for battery housings

Henkel's etch passivation process for light metal battery housings eliminates the use of chromium, while shortening processing steps and providing greater production flexibility for metal pretreatment. The process combines etching and passivation into one step and eliminates a rinse stage – reducing total processing steps from eight in a classical light metal pretreatment process to six. After the process is complete, treated parts have the necessary surface properties for future processing, such as welding, adhesive bonding and paint adhesion.

Debondable adhesives for EV battery systems

Battery debonding technology is critical to enable end-of-line repair and disassembly of batteries at end of life. Henkel's research efforts into debondable adhesives include both thermal and electrical delamination triggers that help ensure non-destructive dismantling. Details regarding both thermal and electrical delamination triggers will be featured.

"Compared to Europe, the United States is just beginning its journey toward regulatory requirements for EV Batteries," said Pankaj Arora, Vice President Electronics & E-Mobility, Henkel Corporation, North America. "But dialogue is continuing to increase and it's essential we prepare today in order to enable the repair, reuse and recyclability of the battery."

Additional highlights at Battery Show North America 2024

- Modeling and simulation capabilities that help customers and partners accelerate product development timelines
- Broad portfolio of advanced solutions on display for touch and feel, including thermal interface materials, structural and assembly adhesives, gasketing and sealants, dielectric coatings & battery safety coatings.
- Sneak preview of Henkel's Battery Application Center, North America facility, coming to its automotive headquarters in Madison Heights, Mich., in 2025.
- All-women exhibit staffing hours from 9:30 a.m. 1 p.m. on Wednesday, October 9, highlighting key contributions women are making toward advancing the BEV market.

Learn more about Henkel's participation at this year's show on our Web page here.

About Henkel

With its brands, innovations and technologies, Henkel holds leading market positions worldwide in the industrial and consumer businesses. The business unit Adhesive Technologies is the global leader in the market for adhesives, sealants and functional coatings. With Consumer Brands, the company holds leading positions especially in laundry & home care and hair in many markets and categories around the world. The company's three strongest brands are Loctite, Persil and Schwarzkopf. In fiscal 2023, Henkel reported sales of more than 21.5 billion euros and adjusted operating profit of around 2.6 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 about 48,000 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

About Henkel in North America

Henkel's portfolio of well-known brands in North America includes Schwarzkopf® hair care, Dial® soaps, Persil®, Purex®, and all® laundry detergents, Snuggle® fabric softeners as well as Loctite®, Technomelt® and Bonderite® adhesives. With sales close to 6.6 billion US dollars (6 billion euros) in 2023, North America accounts for 28 percent of the company's global sales. Henkel employs around 8,000 people across the U.S., Canada and Puerto Rico. For more information, please visit www.henkel-northamerica.com and on Twitter @Henkel NA.

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

Contact Carrie Cioffi-McGuire Phone +1 248-840-6879

Email <u>carrie.cioffi-mcguire@henkel.com</u>





Sneak Preview of Henkel Booth at Battery Show North America 2024.



Prismatic battery cell with conductive coating layer



Electrical delamination debonding



Chromium-free etch passivation process for light metal battery housings