Press Release

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Showcase of innovative printed electronics solutions and strong ecosystem of partners for smart surfaces, smart healthcare, and smart connectivity.

Henkel highlights innovation portfolio for end-use printed electronics applications at LOPEC 2024

Düsseldorf – During the upcoming LOPEC trade show on March 6 and 7 in Munich, Henkel will display its functional material innovations for printed electronics solutions for various industry applications. At booth 607 in hall B0, the company will focus on its material formulation expertise in smart living, mobility, and sustainability, underlined by different demo parts and material samples for smart surfaces, smart healthcare, and antenna solutions. In addition to its material solution portfolio for printed electronics, Henkel will highlight its development capabilities supported by its broad ecosystem of partners.

Henkel is an industry-leading supplier of printed electronics materials and services. The broad Loctite portfolio of functional inks includes conductive inks and paints and resistive and dielectric inks. Henkel's portfolio and four decades of material formulation expertise enable the company´s partners to develop printed electronics applications tailored to the specific properties demanded by industrial customers – for example, in healthcare, automotive and consumer electronics.

Self-regulation PTC Heaters

During LOPEC 2024, Henkel will demonstrate new smart surface heating technology developments for various markets such as automotive, medical, industrial, and consumer connectivity. The company´s portfolio offers material solutions ideal for various smart healthcare and surface technologies, including innovative self-regulating foil heaters. In combination with silver and dielectric inks, Henkel’s Positive Temperature Coefficient (PTC) technology enables self-regulating foil heaters. Self-regulating heaters are assembled using highly conductive silver ink for tracks and screen-printable carbon PTC inks that self-regulate at a certain temperature range and reach temperature quickly. The carbon-based PTC inks

provide uniform heating, without the risk of overheating, for low (<50V) and high voltage applications and are printed between the silver conductive tracks. A compatible dielectric insulating coating or a laminated foil should be applied to protect the assembly. Henkel has connections to a strong ecosystem of partners, including heating technology experts, who can help design and print your heater application.

"As the leading international platform for printed electronics, LOPEC brings together all relevant global players from research to application," explained Stijn Gillissen, Head of Printed Electronics at Henkel. "This year, we will showcase our expertise with various material innovations and a special focus on self-regulating PTC heaters. We will also demonstrate our partnership network across different industrial markets as we strongly believe that close collaborations are key for future innovations."

Henkel will showcase a live battery heating demonstration at the exhibition booth in collaboration with its partner, Flextem. In addition, Thibaut Soulestin, Lead Application Engineer for printed electronics, EIMEA, at Henkel, will present at the LOPEC Conference on **March 6 from 05.20 – 05.40 pm** (room 13 at the International Congress Center Munich). Under the title '*From Experiment to Final Print: Understanding Self-Regulation PTC Heaters,*' Thibaut will elaborate on the large range of expertise required to develop self-regulating heaters and outline current improvements for design guidelines that help significantly accelerate this process.

Broad portfolio for smart healthcare and antenna applications

Besides the novel PTC heater solutions, Henkel will showcase its growing material portfolio for smart healthcare and antenna applications. At the LOPEC exhibition, the company will present wearables, heaters, and innovative pad printable antenna solutions for medical solutions. In addition, the company is continuously developing printed electronics solutions for 5G connectivity. Thus, another focus of the LOPEC booth will be on unique rotary screens and high-speed printing technology applications of antennas. Under the theme '*Innovate without the Hassle of Innovating*,' the Henkel experts look forward to discussing market challenges such as the increasing need for sustainability and to consult on next-generation applications in printed electronics.

Student open innovation challenge

To further drive knowledge and foster curiosity about printed electronics, Henkel also supports education initiatives. In collaboration with OE-A, the company initiated an open innovation challenge for university students. Using Henkel´s Qhesive Solutions Sensor INKxperience Kit, students at partnering universities have been invited to develop and prototype an innovative

idea for a printed electronics application in the smart living or mobility market. Participants delivered a miniature prototype of the solution and transferred the raw data output into a visually appealing dashboard showcasing the final information and data read out of the application. The winning idea will be showcased at LOPEC 2024 at the OE-A booth.

"Henkel is passionate about education initiatives, and we are proud to have the opportunity to partner with the OE-A in this innovation challenge and be part of the jury panel in selecting the winner," added Stijn Gillissen.

"LOPEC is the ideal platform to showcase and award the creative ideas for printed electronics applications provided by the students. It was exciting to see how the student groups went from written product concept to a functional prototype, with a clear emphasis on the collection of meaningful data," described Juanita Rueda E., Junior Market Strategy Manager for Henkel Printed Electronics.

Are you interested in getting more information about Henkel´s latest innovative printed electronics solutions? Connect with the team by contacting printed.electronics@henkel.com or by visiting LOPEC 2024 on March 6 and 7 at booth 607 in hall B0.

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 about 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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Henkel AG & Co. KGaA

Henkel highlights innovation portfolio for end-use printed electronics applications at LOPEC 2024 with a focus on printed self-regulation PTC heaters.


Henkel is an industry-leading supplier of printed electronics materials and services offering a broad Loctite portfolio of functional inks such as Positive Temperature Coefficient (PTC) inks.

In combination with silver and dielectric inks, Henkel's Positive Temperature Coefficient (PTC) technology enables the screen printing of self-regulating foil heaters.