



Press Release

November 9, 2022

Henkel and Quad Industries take partnership to the next level

Henkel offers unique solution for faster development of health patches

Düsseldorf – Henkel, a global leader in material technologies and Quad Industries, a Belgian specialist in printed electronics, have developed a new concept to enable innovations for smart health patches with accelerated speed to market at lower cost. The partners are offering a demo package of twelve electrodes that customers can order online. The demo package is designed to allow engineers to quickly test the functionalities of their concepts, significantly reducing the development time by up to three months and lowering the overall design costs.

One-stop shop for innovation

In the medical industry, the demand for digital health solutions and remote patient monitoring is constantly increasing. Thus, the market of smart health patches is on a steep growth trajectory showcasing a high innovation level. To facilitate and further speed up the innovation process for smart patches, Henkel and Belgian scale-up Quad Industries are now offering a unique demo package of twelve electrodes that can simply be ordered online via the Henkel sample shop. With these patches, medical engineers have all they need to test their initial concepts, allowing them to move into the phase of custom design much sooner, in a more targeted way. This approach enables a more efficient design, saving at least one prototyping cycle and the respective time and cost invest., In addition, customers can find all relevant information and materials in a few clicks, where previously, they needed to coordinate with various suppliers, from design to production.

This new approach also represents a significant shift in the health patch value chain for Henkel, from its initial position as supplier of materials and inks for the patches to the dedicated partner for the entire prototyping process, from design to proof of concept for production, in collaboration with Quad Industries. Stijn Gillissen, Global Manager for Printed Electronics at Henkel: "With this unique offer of demo electrodes, we can really help to further boost the great innovations that are in the pipeline of many of today's healthcare startups and electrode

manufacturers. We strongly believe in the potential of this approach, enabling a new efficient way of product development in an industry that is in full expansion.”

Advanced materials

The initial focus of the demo electrode package is Electrocardiographic (ECG) monitoring, as this is often linked to different disease profiles. ECG is not only used to check the rhythm of heartbeats, but also various other values like damage of heart muscle cells, the heart’s size or the function of implanted pacemakers. It is the ambition to further expand the functionalities in the near future with different metrics and to evolve towards a multifunctional design.

The electrodes contain five different Henkel materials, including a number of new products. The demo patches contain a dry electrode adhesive that ensures the crucial electrical contact with the skin. This innovative adhesive provides a significant added value in the fact that the health patch can be worn for multiple days, which is often a challenge in traditional patches using hydrogels. In addition, the demo electrodes will also contain a novel conductive silver ink that facilitates the stretchability of the electrode. This is particularly important to make sure the electrical signal remains consistent at high quality while at the same time providing a high comfort level for the patient.

The mix of materials is based on the latest innovations to enable the design and development of thin, flexible and light-weight solutions for new smart patches or to provide an upgrade to existing technologies. Stijn Gillissen: “With this ready-made combination of our most advanced state-of-the-art materials, we aim to further drive technology development and strengthen the innovation capacity within digital healthcare.”

Building on existing partnership

The demo patches are a joint design by Henkel and Quad Industries and will be produced by the latter. Both companies have started partnering in 2019, and since then have collaborated on different projects especially in the area of digital health solutions such as the development of a smart sports tracking system. In 2020, Henkel and Quad Industries were also part of the consortium behind the development of the smart health patch that allowed the remote monitoring of the vital signs of Covid-19 patients. Based on these successful projects and the strong complementarity, Quad Industries became a strategic partner in Henkel’s ecosystem in 2021 for design creation, prototyping and manufacturing of printed electronics via flatbed screen printing. Since then, the partners have tackled various projects together. Arne Casteleyn, Co-CEO Quad Industries: “We are pleased to take the next step in our collaboration with Henkel and we are strongly convinced of the potential and added value of our new approach. We believe that we will be able to add a new project to our pipeline every month.”

For further information, visit our sample shop under <https://print-your-electronics-with-loctite.com/LOCTITE-SENSOR-DEMONSTRATOR>

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 2021, Henkel reported sales of more than 20 billion euros. The company employs about 53,000 people globally – a passionate and highly diverse team, united by a strong company culture, a common purpose, 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.

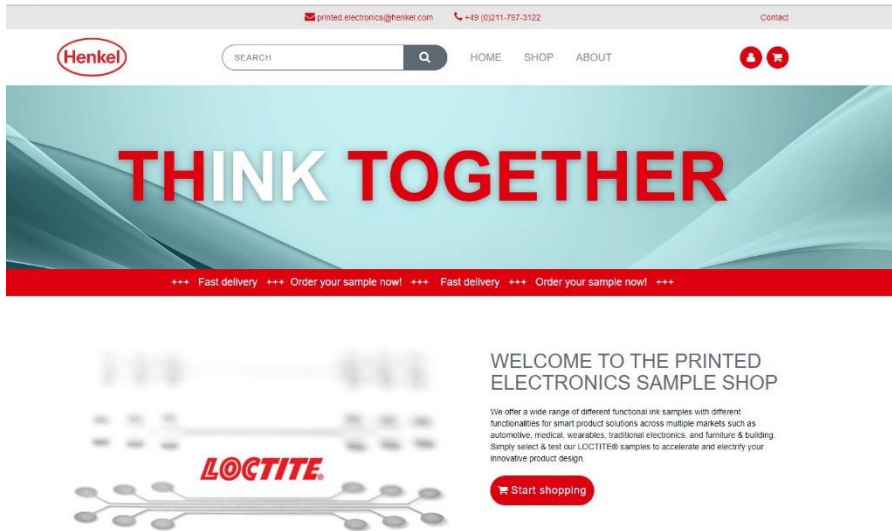
Photo material is available at www.henkel.com/press

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