

Press Release

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Henkel at SMT Hybrid Packaging 2014

High-Technology Adhesives for Microelectronics

Through its Electronics business, Henkel offers customers from the electronics industry worldwide a specialized portfolio of innovative high-technology adhesives for the manufacture of microchips and electronic assemblies. These include hotmelts for sensitive electronic components and also soldering pastes for printed circuit board (PCB) assembly, products that will be central to Henkel's trade show appearance at SMT Hybrid Packaging in Nuremberg from May 6 to May 8, 2014.

Henkel offers innovative hotmelt adhesives under the Technomelt brand that can be used for low-pressure molding applications. Thus, with these adhesives it is possible not only to bond surfaces but also to provide protective encapsulation even for small and delicate electronic components. In medical engineering and in the automotive industry in particular, the resistance of the adhesives used to environmental influences such as different temperatures, moisture, solvents and oils plays a decisive role in assuring the performance of sensors and other sensitive components.

In the low-pressure molding process, the components are placed without a housing in a mold and encapsulated with the hotmelt. Once the molding has cooled and solidified, the components – now provided with a protective outer shell – are ready for further processing. Hotmelt molding uses one-part adhesives, resulting in a simple, very fast and clean production process. The low application pressure ensures that the process is gentle. As a result, it is also possible to encapsulate even small and delicate components with a hotmelt adhesive. Hence this technique is especially effective when applied to PCBs and electronic devices. Because virtually any housing shape and encapsulation is possible with this method, it can be readily used

for a broad spectrum of product geometries. Under the Technomelt brand, Henkel offers a wide range of polyamide-based and polyolefin-based hotmelt products which, depending on the specific requirements of each application, not only deliver various benefits in terms of temperature resistance, adhesion to different materials, and hardness, but are also available in a broad choice of colors.

High-Performance Halogen-Free Solder Paste

Henkel has further expanded its range of halogen-free products through the development of Loctite Multicore HF 212. This halogen-free, lead-free solder paste is ideal for today's high-value PCB assemblies. Like Henkel's other halogen-free formulations in the product portfolio, Loctite Multicore HF 212 contains zero deliberately added halogen and is under the limit of detection for chlorine and bromine when subjected to rigorous testing. With consistent print performance and minimal hot slump – even in regions with temperatures that exceed 30°C (86°F) and with relative humidity (RH) as high as 80 percent, Loctite Multicore HF 212 offers exceptional stability and environmental adaptability. The material exhibits extremely low voiding in CSP via-in-pad joints, good coalescence and excellent solderability over a wide range of surface finishes including Ni/Au, Immersion Sn, CuNiZn, Immersion Ag and OSP copper.

Loctite Multicore HF 212 enables more robust printing processes at electronic component manufacturers around the globe. One of the biggest operational benefits lies in the paste's exceptionally long stencil life. In an environment where cost control is essential, the ability to leave the paste on the stencil for very long periods of time – even until the next shift – with no degradation in quality is a huge advantage. This means that far less paste is discarded than in the case of conventional products, leading to significant cost savings.

During SMT Hybrid Packaging from May 6 to May 8, 2014, Henkel's experts can be found at Stand 353 in Hall 9 where they will be delighted to provide a full range of information on the extensive product portfolio that the company has in store for the electronics industry.

You can find further information at www.henkel.com/electronics.

Henkel operates worldwide with leading brands and technologies in three business areas: Laundry & Home Care, Beauty Care and Adhesive Technologies. Founded in 1876, Henkel holds globally leading market positions in both the consumer and industrial businesses with well-known brands such as Persil, Schwarzkopf and Loctite. Henkel employs about 47,000 people and reported sales of 16.4 billion euros and adjusted operating profit of 2.5 billion euros in fiscal 2013. Henkel's preferred shares are listed in the German stock index DAX.

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

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The following material is available:



With the hotmelt adhesives under the Technomelt brand, it is possible not only to bond surfaces but also to provide protective encapsulation even for small and delicate electronic components.



The halogen-free, lead-free solder paste Loctite Multicore HF 212 is ideal for today's high-value PCB assemblies.