

Press Release

02/29/2016

Henkel on Show at Light & Building 2016

Comprehensive Lighting Solutions

From Hall 4, Booth G61 at the upcoming Light & Building event taking place March 13 through 18 in Frankfurt, Henkel Adhesive Technologies will showcase its total solutions approach to modern lighting applications. With an innovative materials portfolio that addresses the full spectrum of lighting manufacturing requirements – from semiconductor packaging to solder to thermal management and encapsulation – Henkel delivers a single supplier alternative.

High-Performance Thermal Materials

The thermal offer from Henkel now encompasses the market-leading portfolio of the former Bergquist brand and includes proven products such as T-CLAD, GAP PAD, GAP FILLER and StabiLUX, addressing the increasingly challenging design and performance requirements of today's LEDs. The Henkel display will highlight two new thermal innovations, self-leveling GAP FILLER 1400SL, and GAP FILLER 3500LV, a liquid gap filling material with low outgassing to prevent lens fogging – a critical consideration for lighting specialists.

In addition to robust thermal capability, maintaining performance and extending the brightness lifetime of the LEDs offers differentiation in the competitive lighting sector. Henkel's new StabiLUX reflective coating, which is designed for use with FR4 printed circuit boards and T-CLAD insulated metal substrates, maintains nearly all of its reflectance after challenging thermal processing or prolonged UV exposure and delivers a longer brightness lifetime as compared to solder mask alone.

Semiconductor and Solder Solutions

For bonding LED die to substrates, Henkel offers a range of die attach adhesive materials with properties tailored for various LED chip configurations, sizes and power ratings. Loctite Ablestik ABP 8035, for example, is a transparent silicone adhesive with good resistance to yellowing during operation. Other materials highlighted at the event include Loctite Ablestik C850, a traditional conductive epoxy adhesive that provides an economical solution for medium power LED chips; and

Loctite Ablestik ABP 8060T, which is a state-of-the-art adhesive designed for attaching the latest high power components.

LED board assembly is also facilitated by high-performance solder pastes. Most notably, Henkel's award-winning Loctite GC 10 temperature stable, lead-free solder paste material delivers unique logistics, storage and processing advantages. Temperature stability at 26.5° C for one year and at 40°C for one month means manufacturers can do away with expensive shipping requirements and on-site refrigerated storage. In process, Loctite GC 10 provides for more consistent print transfer efficiency, greater online paste utilization and, for reflow, an expanded window with soak temperatures between 150°C and 200°C.

For very high power LED assemblies, solder alloys that have excellent thermal cycling performance and can withstand stress so as to avoid micro-cracking are recommended. Henkel's 90iSC™ solder alloy has a high melting point and is capable of operating at temperatures as high as 150°C, making it particularly well-suited for applications where thermal stability is required for long-term reliability.

Low-Pressure Molding Encapsulants

Delicate LED components can often become damaged during conventional potting processes, which is why lighting specialists are increasingly turning to Henkel's low pressure Technomelt hot melt materials. UV stability is built into both the reflective white and optically clear Technomelt formulations, which are ideal for applications in the lighting sector. The clear version allows for high transmittance of optical signals for lighting sensors, while the reflective white Technomelt offers aesthetic alignment with indoor and outdoor architectural lighting.

In addition to these Technomelt solutions, visitors to the Henkel stand can learn more about the brand new thermally conductive material, which makes its European debut at Light & Building 2016. Combining both encapsulating and heat dissipating functionality allows manufacturers to source a single material for dual purpose. Thermally conductive Technomelt's premiere material offers a thermal conductivity of 0.5 W/m-K and is well-suited for LED driver boards and transformers.

Show delegates are invited to speak with Henkel's technical team, see live Technomelt molding demonstrations and learn more about the company's complete lighting solutions in Hall 4, Booth G61 or visit www.henkel.com/electronics.

Loctite, Ablestik, Technomelt, StabiLUX, Gap Pad and T-Clad are registered trademarks of Henkel and/or its affiliates in Germany and elsewhere.

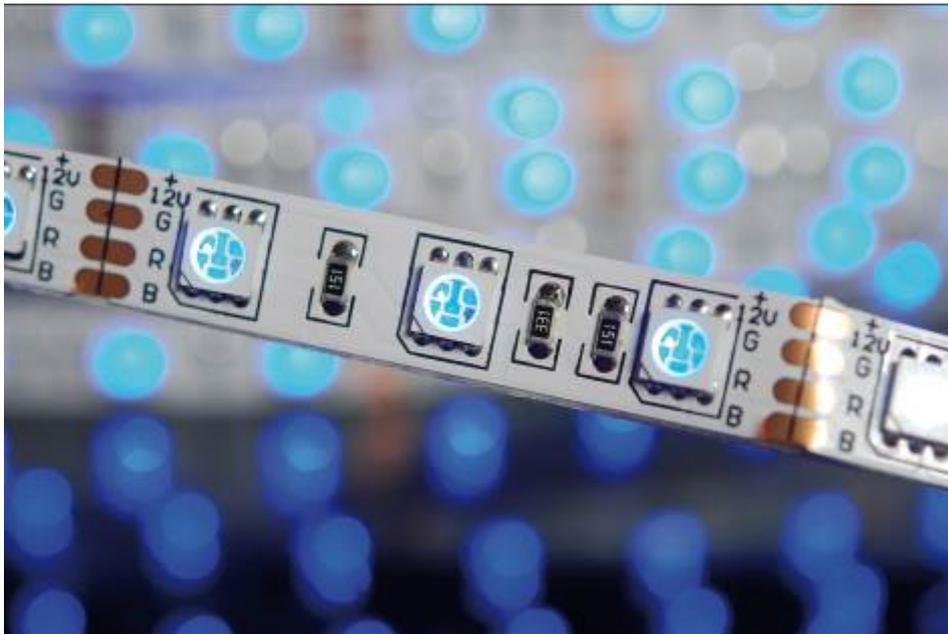
About Henkel

Henkel operates worldwide with leading brands and technologies in three business units: Laundry & Home Care, Beauty Care and Adhesive Technologies. Founded in 1876, Henkel holds globally leading market positions, both in the consumer and in the industrial businesses, with well-known brands such as Persil, Schwarzkopf and Loctite. Henkel employs about 50,000 people and reported sales of 18.1 billion euros and adjusted operating profit of 2.9 billion euros in fiscal 2015. Henkel's preferred shares are listed in the German stock index DAX.

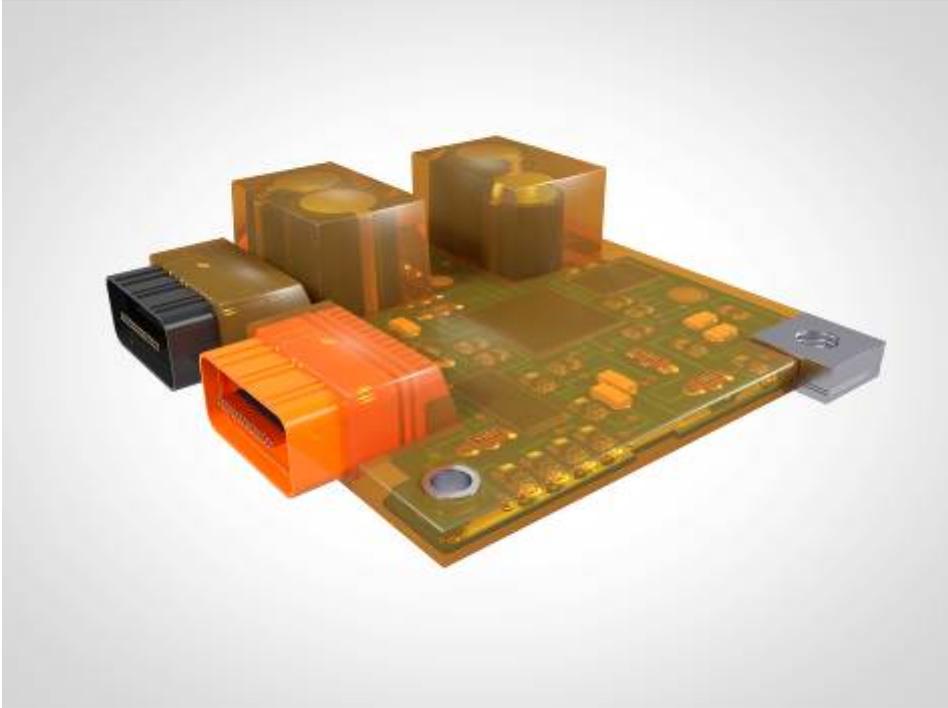
Photo material is available at <http://www.henkel.com/press>

Contact Holger Elfes
Phone +49 211 797-99 33
E-mail holger.elfes@henkel.com

Henkel AG & Co. KGaA



Thermal Clad from Henkel keeps LEDs intense, bright and reliable.



Low Pressure Molding with Technomelt delivers an advanced and environmentally sustainable solution to Printed Circuit Board Protection