

Press Release

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Henkel at PCIM Europe 2016

Henkel to Debut Thermally Conductive Technomelt Material, Display Thermal Management Solutions

At PCIM Europe 2016, taking place May 10- 12 in Nuremberg, Germany, Henkel Adhesive Technologies' new thermally conductive low pressure molding Technomelt material, Technomelt TC 50, will make its European market debut. The novel encapsulation and heat dissipating hot melt adhesive will be one of several thermal management solution highlights on Henkel booth #335 in Hall 7, which will also showcase a full range of thermal substrates, thermal interface materials and advanced interconnect materials for power applications.

Following its successful North American launch earlier this year, Henkel will bring Technomelt TC 50 to the European electronics community at PCIM Europe 2016. The new low pressure molding system maintains all of the benefits of award-winning Technomelt materials, while incorporating heat dissipation functionality. Like all Technomelt products, Technomelt TC 50 enables a simple, three-step, single material overmold process that is compatible with delicate, fine-pitch assemblies and provides watertight encapsulation for protection from a variety of environmental influences. The new formulation, however, also delivers a thermal conductivity of more than 0.5 W/m-K, allowing heat generated by the assembly to dissipate through the Technomelt material. Ideal for applications such as LED drivers, automotive electronics, solar inverters, camera modules and power supplies, Technomelt TC 50 offers thermal management and protection in a single material. Live demonstrations of Technomelt TC 50 will take place at Henkel booth #335 throughout the three-day show.

Loctite TCP Phase Change TIMs

For managing the requirements of power devices including CPUs, IGBTs and discrete components, Henkel's Loctite TCP Phase Change thermal interface materials (TIMs) offer a highly-effective alternative to conventional greases, providing performance, long-term reliability and processing advantages. Loctite TCP materials have the ability to cope with the higher power densities of certain applications, exhibit



low in-package thermal resistance, and effectively manage higher operating temperatures over extended periods of use. In addition to their impressive thermal management capabilities, Loctite TCP Phase Change materials enable process and design flexibility. The materials can be dispensed or screen printed in infinite patterns, thicknesses and areas for an automated, high throughput and adaptable operation. Loctite TCP products remain in a dried state until melting at their designated phase change temperature, which allows them to also be used as a pre-applied solution. They are more reliable as compared to greases, which have a tendency to migrate or “pump out” over time, limiting thermal performance.

The application range for these novel materials is broad and PCIM show delegates are invited to discuss the full scope of Loctite TCP solutions with the Henkel technical team and/or attend Henkel’s conference presentation on the topic. The paper, entitled “Beyond Thermal Grease, Enhancing Thermal Performance and Reliability”, will be delivered by Henkel’s Director of R&D for Thermal Materials, Mr. Sanjay Misra, on Tuesday, May 10 at 11:00 a.m. in room München 1.

Proven Thermal Clad Insulated Metal Substrates

Applications with high watt densities and high currents are well-suited for Henkel’s proven Thermal Clad insulated metal substrates, which provide effective heat conduction and minimal thermal impedance as compared to traditional printed circuit boards (PCBs). The built-in thermal management capability of Thermal Clad substrates enables manufacturers to streamline designs through reduced PCB dimensions, extend die life, improve thermal and mechanical performance, and lower operating temperature. Thermal Clad substrates are successfully incorporated into numerous high power applications including LED lighting, power conversion, solid state relays and switches, and motor drives.

Henkel’s Gary Wexler, Field Applications Engineer for Thermal Substrates, will share additional details about Thermal Clad capability during his “Thermal Clad Substrate Technology – A Flexible Solution for High Power Designs” presentation at the Trade Show Forum on Tuesday, May 10 at 3:40 p.m.

To schedule an appointment with a Henkel technical expert during PCIM Europe 2016, e-mail electronics@henkel.com. More information about Technomelt TC 50 is available at www.technomelt-simply3.com. Visit www.henkel-adhesives.com/thermal to learn about Henkel’s full suite of thermal material solutions.

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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>

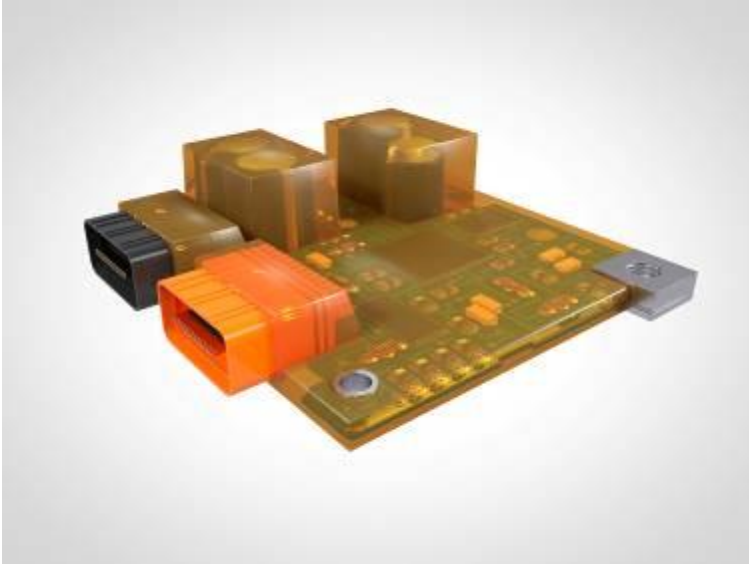
Contact Holger Elfes
Phone +49 211 797-99 33
E-mail holger.elfes@henkel.com

Contact Ines Behrendt
Phone +49 211 797 6076
E-mail ines.behrendt@henkel.com.

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— Technomelt Low Pressure Molding.