



Press Release

May 5, 2017

Dual Booth Locations Provide PCIM & SMT Nuremberg Visitors Total Access to Henkel's Materials Expertise

Henkel Leverages Large Presence at PCIM Europe and SMT Hybrid Packaging Events to Highlight Advanced Thermal Management Materials, PCB Protection and Solder Materials

Düsseldorf, Germany – This month, Henkel will exhibit at both PCIM Europe (PCIM) and SMT Hybrid Packaging (SMT), which are co-located events set to take place over May 16 -18 in Nuremberg, Germany. From a dedicated Henkel display in Hall 7, Booth# 445 at PCIM and a shared exhibit in Hall 4, Booth# 241 with distributor AAT Aston at SMT, the material leader will highlight its latest developments in advanced thermal management solutions, thermally conductive low pressure molding materials and award-winning solder paste.

Comprehensive Thermal Control for Power Applications

From the board-level to electronic encapsulation, Henkel's line of thermal management materials covers the entire spectrum of temperature control solutions. At PCIM and SMT, attendees can learn more about T-Clad Insulated Metal Substrates (IMS), high thermally conductive liquid Gap Fillers, Gap Pad thermal interface materials, phase change materials, and thermally conductive Technomelt TC 50 low pressure molding material.

Each of these materials offer advantages for a wide range of electronic devices, but particularly for applications found within the industrial automation and automotive sectors. T-Clad IMS thermal substrates are ideal for higher-watt density SMT applications and conduct heat more effectively than traditional PCBs. For devices such as power modules, Henkel's screen-printable or dispensable Loctite TCP 7000





phase change material provides a superior alternative to conventional thermal greases. The phase change materials remain in a dried state until melting and flowing at their designated phase change temperature, allowing them to be pre-applied to the device or applied during the board assembly process. High thermally conductive TIMs, Gap Pad HC 3.0 (3.0 W/m-K) and Gap Pad HC 5.0 (5.0 W/m-K), along with liquid Gap Filler 4000 (4.0 W/m-K) and low volatility Gap Filler 3500LV (3.5 W/m-K), deliver application flexibility, with either pad-based materials for flat surfaces or liquid, void filling thermal control for more complex, multi-level architectures.

For products that require heat dissipation through the encapsulating layer, new thermally conductive Technomelt TC 50 (www.technomelt-simply3.com) has been developed as a replacement for traditional potting materials. Technomelt TC 50 provides >0.5 W/m-K thermal conductivity along with all the benefits of Technomelt's high throughput, protective capabilities.

Live demonstrations of Technomelt TC 50 will take place in the Henkel booth at PCIM and within the Henkel space on the AAT Aston booth at SMT. Liquid Gap Filler materials will be demonstrated and samples of other thermal management products will also be available at PCIM.

Room Temperature Stable Solder Paste

In addition to the portfolio of thermal management solutions, Henkel will showcase its award-winning Loctite GC 10 (www.soldergamechanger.com) temperature stable solder paste at both PCIM and SMT. The stability of the material enables advantages at every stage of use – from shipping and storage to superior PCB assembly processability to long-term reliability. Loctite GC 10, which can be stored at room temperature for up to one year, was recently part of a study ([download study](#)) that compared its performance to that of three other well-known lead-free solder



pastes. Among all of the evaluated materials, Loctite GC 10 exhibited the best Cpk (deposit volume average and distribution) on challenging sub-0.66 are ratio deposits. This, in addition to the advantages of zero start up time, reduced refrigeration requirements, 95% utilization resulting in minimal waste and simplified management, make Loctite GC 10 the industry's premier high-performance solder paste. To illustrate the material's non-separating, non-drying characteristics, sample jars of Loctite GC 10 will be on show at each Henkel booth.

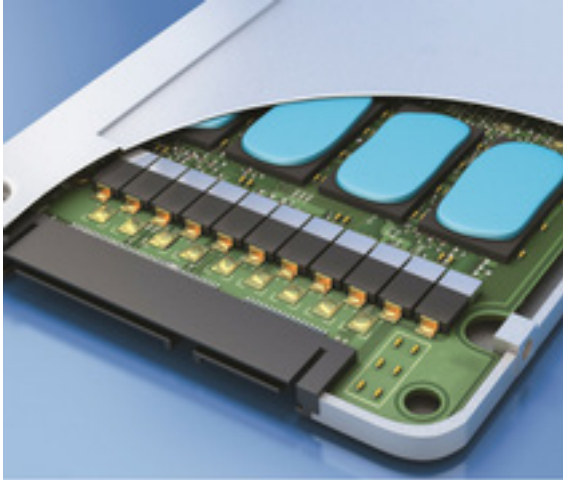
To schedule a meeting with a Henkel technical specialist during PCIM or SMT, send an e-mail to mahmoud.awwad@henkel.com. For more information about Henkel's next-generation material solutions, visit www.henkel-adhesives.com/electronics.

About Henkel

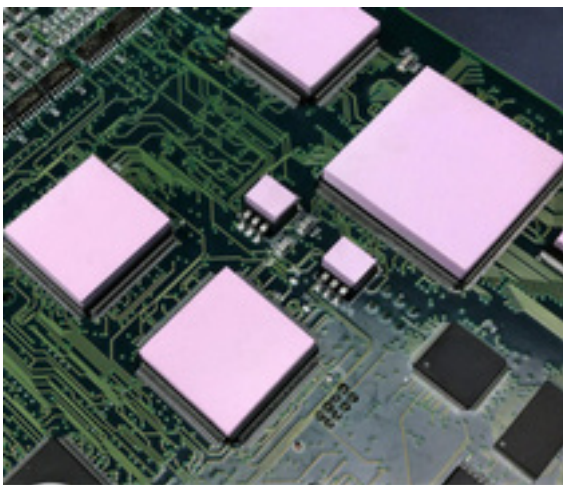
Henkel operates globally with a well-balanced and diversified portfolio. The company holds leading positions with its three business units in both industrial and consumer businesses thanks to strong brands, innovations and technologies. Henkel Adhesive Technologies is the global leader in the adhesives 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 2016, Henkel reported sales of 18.7 billion euros, adjusted operating profit of 3.2 billion euros. Its three top brands, Persil (detergent), Schwarzkopf (hair care) and Loctite (adhesive) generated more than 6 billion euros in combined sales. Henkel employs more than 50,000 people globally – a passionate and highly diverse team, united by a strong company culture, a common purpose to create sustainable value, 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 <http://www.henkel.com/press>

Contact Ines Behrendt
Phone +49 211 797 6076
Email electronics@henkel.com
Henkel AG & Co. KGaA



Liquid Gap Filler 4000 (4.0 W/m-K)



Thermally conductive Gap Pad HC 5.0 (5.0 W/m-K)