

Press release

Henkel Develops Market's First-Ever Temperature Stable Solder Paste, LOCTITE GC 10

February 24, 2015 – In a major materials development breakthrough that is set to change current solder paste processing performance and cost paradigms, The Electronics Group of Henkel announces the launch of the first-ever temperature stable solder paste material. The game-changing formulation, LOCTITE GC 10, is temperature stable at 26.5°C for one year and stable at temperatures of up to 40°C for one month, which affords exceptional performance throughout the logistics and operations chain – from shipping/receiving to printing and reflow.

"Truly, this is the most exciting thing that's happened in solder materials development in decades," says Dr. Mark Currie, Henkel Global Product Manager for Solder Materials. "A material that has temperature stability from shipping all the way through to final assembly is a remarkable achievement."

In process, LOCTITE GC 10 offers significant improvements over conventional solder paste materials. As compared to traditional materials which average abandon times ranging from 1 to 4 hours, the halogen-free, lead-free, temperature-stable Henkel formula enables abandon times of up to 24 hours and has a startup time of zero. Stabilized and consistent print transfer efficiency, an expanded reflow window and increased activity for better results with soak temperatures between 150°C and 200°C, make LOCTITE GC 10 incomparable among other paste materials. The solder system's stability on the line allows for significant cost savings with on-line paste utilization of more than 95%. The reductions in solder-related defects achieved with LOCTITE GC 10's process performance result in higher yields and improved profitability.

Not only will manufacturers realize process improvements and cost reductions due to LOCTITE GC 10's unmatched performance, but will also experience resolution to long-standing logistics and storage challenges. The temperature stability of the product eliminates the requirement for cold packing, overnight shipping and refrigerated storage. Packaging and shipping costs are reduced and energy consumption within the factory is decreased.

Having been trialed at numerous customers worldwide, the results of the material's performance indicate future commercial success with widespread integration into electronics manufacturing operations worldwide. "The improved performance, higher





yields and better profitability customers will achieve from this breakthrough material are substantial," explains Currie. "LOCTITE GC 10 sets a new standard for high-performance solder materials."

Those interested in learning more about the material are invited to stop by Booth 2309 at APEX, visit <u>www.henkel.com/electronics</u> or call 714-368-8000.

About Henkel

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 both in 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 \$21.8 billion and adjusted operating profit of \$3.3 billion in fiscal 2013. Henkel's preferred shares are listed in the German stock index DAX.

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