



Press Release

February 7, 2019

LOCTITE® GC 18 Offers Logistics and Process Stability for Heterogeneous Assemblies

Low-Voiding Formulation Joins Henkel's Temperature Stable LOCTITE® GC Solder Materials Portfolio

Irvine, CA – Henkel Corporation has expanded its award-winning, temperature stable LOCTITE® GC solder portfolio and today announced the commercial availability of its latest solder paste, LOCTITE® GC 18. The new material is a low-voiding formulation designed for use with multiple component sizes and types, including large, thermally-challenged devices such as MOSFETs, LPBGAs, QFNs and large array components. Available in Type 3 and Type 4 pastes, halogen-free and lead-free LOCTITE GC 18 provides the comprehensive temperature stability benefits inherent with the LOCTITE GC platform, delivering sustainability, reliability and low cost of ownership.

“With a large percentage of PCB assemblies incorporating a broad range of component sizes and types, stable solder paste capability for heterogeneous products is critical for high-yield outcomes,” says George Thomas, Henkel Vice President and Americas Head of Industrial Electronics. “Demanding SMT environments require materials that ensure stability and manufacturing adaptability for dynamic operations.”

Consistent with other LOCTITE GC formulations, LOCTITE GC 18 is stable for one year when stored at 26.5°C and for one month in temperatures up to 40°C. The enduring material consistency provides benefits across the value chain from transport to on-site warehousing to production, allowing resource optimization, excellent in-process performance and the ability to source a single material for a wide spectrum of product builds. With high Cpk during continuous printing and after four hours of abandon time, LOCTITE GC 18 is formulated for excellent transfer efficiency and is compatible with challenging surface finishes such as OSP- and/or Ni/Zn-coated copper and HASL.

Most importantly, LOCTITE GC 18 exhibits low void incidents with diverse components including 0201 chip resistors and capacitors, 0.4 mm pitch BGAs, SOICs, QFPs and QFNs measuring > 10 mm x 10 mm. The material's voiding performance has been validated with various surface finishes, board sizes, components, atmospheres, reflow profiles and reflow ovens. Notably, the low voiding results observed with LOCTITE GC 18 were achieved with reflow in air – a capability that allows assembly specialists to further reduce operational expenditures by lowering nitrogen use. Other air reflow performance attributes include excellent coalescence in long, hot profiles for 0201 and 0.4 mm pitch components, high humidity resistance, minimal hot slump at 190°C and unmatched solder joint appearance as compared to other Pb-free solder joints.

“In total, the low-voiding, high-yield, greater than 95% on-line paste utilization, reliability, storage advantages and reflow performance facilitated by the material's stability have placed LOCTITE GC 18 solidly at the top of the leaderboard among halogen-free, lead-free solder pastes,” concludes Dr. Bruno Tolla, Henkel Solder and Encapsulation Technology Manager. “Together, these capabilities ensure robust interconnects and lower total cost of ownership.”

For more information about LOCTITE GC 18 or any of Henkel's LOCTITE GC materials, visit www.henkel-adhesives.com/us/en/products/solder-material.html. To request a sample for evaluation and learn about the cost savings that can be achieved with LOCTITE GC 18, call 1-888-943-6535.

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 2018, Henkel reported sales of around 20 billion euros and adjusted operating profit of around 3.5 billion euros. Henkel employs more than 53,000 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 www.henkel-northamerica.com/press

Contact Juan Serrano
Phone +1 .714.782.7282
Email juan.serrano@henkel.com