



## Press Release

Versatile Material a Robust Solder Alternative, Compatible with Tin-terminated Components

### High Performance, High Reliability ECA from Henkel Makes Automotive Electronics Inroads

March 17, 2017 – Henkel’s development of LOCTITE ABLESTIK ICP 3535M1 was a historic breakthrough for electrically conductive adhesives (ECAs), allowing use of the material with a more diverse component range. The material provides a robust alternative to solder for many applications, lowers component assembly stress and facilitates lead-free interconnection for regulatory compliance.

Recently, the versatility and proven reliability of LOCTITE ABLESTIK ICP 3535M1 has led to its acceptance at global automotive electronics manufacturers, where the material is being used successfully for the production of transmission control units and qualified for several other automotive applications.

Reliability is a hallmark of LOCTITE ABLESTIK ICP 3535M1, which a primary reason for its automotive electronics acceptance. Internal and customer qualification testing have confirmed the material’s stable contact resistance and good mechanical integrity after 3,000 hours of temperature and humidity testing, 3,000 cycles of thermal shock evaluation and 3,000 hours of heat storage. The material consistently outperformed competitive samples against which it was tested. Excellent performance on smaller components also underscores LOCTITE ABLESTIK ICP 3535M1’s effectiveness for the reduction of defects. Evaluation of the material on 0402 components resulted in zero bridging or wicking, and the material is equally effective on larger devices such MOSFETs.

While LOCTITE ABLESTIK ICP 3535M1 has enjoyed early success in the automotive sector, the material’s versatility extends to any application where low and stable contact resistance, lower stress assembly, regulatory compliance and cost-effectives are required. Whereas other ECAs are unable to cope with non-noble metals on component terminations, LOCTITE ABLESTIK ICP 3535M1 succeeds in delivering performance and reliability effectiveness on traditional palladium silver-, silver- and gold-finished components, as well as cost-effective





tin-terminated components. Applications within the aerospace, wireless datacom, security and lighting sectors will also benefit from the material's flexibility, reliability and cost reduction capability.

“The adaptability of the material is unprecedented for an ECA,” notes Ian Wilding, Henkel Global Technology Manager. “Component adaptability is one example, but the material also allows device assembly onto various substrates including OSP-finished PCBs, LTCCs and high-temperature ceramics. Cost savings per board, supply chain simplicity, performance and reliability are all significantly better with LOCTITE ABLESTIK ICP 3535M1 than with conventional ECA materials.”

For more information, visit [www.henkel-adhesives.com/electronics.com.htm](http://www.henkel-adhesives.com/electronics.com.htm). To request a sample of LOCTITE ABLESTIK ICP 3535 M1, call 888.943.6535.

#### **Henkel in North America**

Henkel markets a wide range of well-known consumer and industrial brands in North America, including Dial® soaps, Persil®, Purex® and all® laundry detergents, Snuggle® fabric softeners, Right Guard® antiperspirants, got2b® hair gels, and Loctite® adhesives. Visit [www.henkel-northamerica.com](http://www.henkel-northamerica.com) for more information.

#### **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 2015, Henkel reported sales of 18.1 billion euros (20.1 billion US dollars), adjusted operating profit of 2.9 billion euros (3.2 billion US dollars). Its three top brands, Persil (detergent), Schwarzkopf (hair care) and Loctite (adhesives) generated more than 6 billion euros (around 6.6 billion US dollars) in combined sales. Henkel employs around 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](http://www.henkel.com)

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