



Press Release

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Gap Stability of new TIM Enhances Reliability of Devices Subjected to Challenging Conditions

Thermal Gel from Henkel lets 5G Telecom Components go Vertical

Irvine, California – As the 5G wireless broadband connection standard continues to gain traction, development and deployment of next-generation systems that can reliably manage high volumes of mobile data processing and transfer are accelerating. Working to help telecom device designers achieve critical in-field robustness and reliability, Henkel today announced the launch of a new gel thermal interface material (TIM) that can withstand the environmental and positioning demands of today's infrastructure components.

BERGQUIST® LIQUI-FORM® TLF 6000HG is a thermally conductive, dispensable, pre-cured gel that offers stable viscosity in storage and in use. The material, which can accommodate gaps up to 3.0 mm, offers production simplicity as the pre-cured formulation requires no mixing or refrigeration. Once applied, the 6.0 W/m-K TIM gel maintains its form and position, which is critical for telecom devices that may be placed vertically in outdoor environments with limited active cooling.

According to leading industry analyst OMDIA, 5G system designs demand a new level of thermal management capability. “The higher data rates, support for new high bands, and lower latency features of 5G infrastructure systems are pushing devices to their maximum capacity,” says Stéphane Téral, Technology Fellow at OMDIA. “Our analysts are seeing bigger ASICs and greater processing power becoming the norm for 5G, making more capable thermal dissipation essential – especially in outdoor environments where active cooling is limited. Thermal interface materials are integral to the reliable performance of next-generation 5G.”

BERGQUIST® LIQUI-FORM® TLF 6000HG is addressing the emerging high thermal conductivity requirements of new 5G telecom infrastructure systems, while simultaneously aligning with large scale manufacturing protocols, delivering compliance with UL and RoHS industry standards and, most importantly, providing in-application performance, durability and long-term reliability. The new, fast-dispensing *BERGQUIST® LIQUI-FORM® TLF 6000HG* TIM showed excellent

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vertical gap stability with no slipping during more than 1,000 hours of gap stability testing, and also passed more than 1,000 hours of thermal cycling testing without any material cracking or degradation in thermal conductivity.

“The customer response to the one-part, 6.0 W/m-K thermal gel has been great and I’m delighted with the enthusiasm about the new material,” concludes Henkel’s Wayne Eng, Global Head of Market Strategy, Datacom and Telecom. “5G designers know that, while thermal capability is essential, thermal conductivity alone is not enough for the demanding 5G space. These new materials not only dissipate heat at a high rate, but also accommodate large gaps for use with a wide application range, provide fast dispensing at up to 17 g/min. for high volume production compatibility, and are resistant to the tough environmental conditions telecom systems must withstand.”

For more information about *BERGQUIST® LIQUI-FORM® TLF 6000HG*, [click here](#).

About Henkel in North America

In North America, Henkel operates across its three business units: Adhesive Technologies, Beauty Care, and Laundry & Home Care. Its portfolio of well-known consumer and industrial brands includes Schwarzkopf® hair care, Dial® soaps, Right Guard® antiperspirants, Persil®, Purex® and all® laundry detergents, Snuggle® fabric softeners, as well as Loctite®, Technomelt® and Bonderite® adhesives. With sales of around 6 billion US dollars (5 billion euros) in 2018, North America accounts for 25 percent of the company’s global sales. Henkel employs approximately 9,000 people across the U.S., Canada and Puerto Rico. For more information, please visit www.henkel-northamerica.com.

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 around 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.

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