

Press Release

November 6, 2018

Thermal Control, Ease of Use, Dispense Capability and Reworkability in a Single Material

Peelable Thermal Interface Material (TIM) from Henkel Recognized with Industry Accolade

Irvine, CA – Notching its second notable industry prize, Henkel's BERGQUIST® Gap Filler TGF 1500RW liquid thermal interface material recently took top honors in the Global Technology Awards' adhesives/coatings/encapsulants/TIMs category. The award contest, which is sponsored by Global SMT and Packaging magazine, recognizes the best new innovations in the electronics assembly and packaging industries. Henkel Business Development Director, Dr. Mark Currie, accepted the prize during a special ceremony at last month's Surface Mount Technology International conference.

The latest in a series of thermal material breakthroughs from Henkel, BERGQUIST Gap Filler TGF 1500RW is a one-part, cure-in-place liquid gap filler that provides multiple advantages for high-volume, high-value assemblies. As a liquid material, the new TIM is well-suited for filling the gaps within challenging and complex architectures and allows for high throughput with automated dispensing compatibility. After curing, BERGQUIST Gap Filler TGF 1500RW achieves excellent surface contact, enabling thermal transfer with thermal conductivity of 1.5 W/m-K.

Uniquely, the new Henkel cure-in-place liquid TIM can be cleanly peeled off of contact surfaces without force, allowing sensitive components to remain intact and protecting product value. Most conventional cure-in-place TIMs are difficult to remove and doing so often permanently damages the components. BERGQUIST Gap filler TGF 1500RW effectively allows high value products to be reworked to maximize cost-efficiency and help improve profitability.

Other benefits of Henkel's latest liquid TIM include reduction of supply chain complexity with the sourcing of a single material, excellent low and high temperature mechanical and chemical stability, a high flow dispense rate for fast deposition and no cure byproducts. All of these advantages combine to deliver an effective TIM







solution for applications that require excellent thermal control and process adaptability and manufacturing environments that strive for operational efficiency.

In addition to the most recent Global Technology Award, BERGQUIST TGF 1500RW is also the recipient of an NPI Award, which it won in early 2018. For more information, visit <u>www.henkel-adhesives.com/electronics</u>.

About Henkel in North America

Henkel operates across its three business units – Adhesive Technologies, Beauty Care and Laundry & Home Care – in North America. Its portfolio of well-known consumer and industrial brands includes Schwarzkopf[®] hair care, Dial[®] soaps, Right Guard[®] antiperspirants, professional hair care brand Sexy Hair[®], Persil[®], Purex[®] and all[®] laundry detergents, Snuggle[®] fabric softeners as well as Loctite[®], Technomelt[®] and Bonderite[®] adhesives. North America is an important region for Henkel: With sales of around 5.8 billion US dollars (5.2 billion euros) in 2017, North America accounts for 26 percent of the company's global sales. Henkel employs more than 9,000 people across the U.S., Canada and Puerto Rico. For more information, please visit <u>www.henkel-northamerica.com</u>.

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 2017, Henkel reported sales of 22.6 billion US dollars (20 billion euros) and adjusted operating profit of around 3.9 billion US dollars (3.5 billion euros). Combined sales of the respective top brands of the three business units – Loctite, Schwarzkopf and Persil – amounted to 7.2 billion US dollars (6.4 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

ContactJuan SerranoPhone+1.714.782.7282Emailjuan.serrano@henkel.com