

## Press Release

2016/06/06

Heat Dissipation and Environmental Protection in a Single Material

# Henkel Develops Thermally Conductive Technomelt Solution

Adding functional capability to its award-winning Technomelt hot melt encapsulants, Henkel Adhesive Technologies today announced another formulation milestone with the development of a thermally conductive Technomelt material. With the ability to transfer heat through the encapsulating layer, thermally conductive Technomelt products offer dual-function performance in a single material solution.

Technomelt materials are well-recognized as a streamlined alternative to multi-step, messy potting processes. Because Technomelt materials can be melted, molded and cooled quickly under low pressure, they deliver a unique encapsulation technique that provides a high throughput solution for protection of delicate circuitry and PCB assemblies, while forming a self-enclosed housing. These inherent Technomelt advantages are now expanded with the addition of thermal conductivity to enable heat dissipation.

“Thermal control is one of the biggest challenges for today’s electronic products,” comments Art Ackerman, Henkel Global Product Manager for Circuit Board Protection Materials. “For certain applications, adding another layer of heat transfer only serves to improve reliability and long-term performance, which is the objective of this new Technomelt platform.”

The first commercialized material in the novel Technomelt portfolio delivers a thermal conductivity of more than 0.5 W/m-K and is well-suited for applications such as LED drivers, power supplies, solar inverters, camera modules and automotive electronic power systems, among others. In testing, the material has shown a 40°C component temperature reduction as compared to standard Technomelt, effectively diffusing heat from its source. Uniquely formulated for molding techniques, the new Technomelt materials draw on Henkel’s broad knowledge of hot melt resin and filler technology to deliver a melt viscosity that is compatible with standard low pressure



molding processes and equipment. Filler dispersion is maintained for long periods of time at melt temperatures above 180°C.

“Henkel’s expertise in thermal management extends outside the boundaries of traditional thermal interface solutions,” concludes Ackerman, noting that current and next-generation product designs will need more material capability than ever before. “This latest Technomelt formulation highlights the out-of-the-box ingenuity consistently delivered by Henkel chemistry specialists and is a benchmark for future multi-function materials integration.”

Additional thermally conductive Technomelt formulations to accommodate higher thermal load requirements are already in development and are expected to be released in late 2016. For more information, visit [www.henkel-adhesives.com/electronics](http://www.henkel-adhesives.com/electronics) and [www.technomelt-simply3.com](http://www.technomelt-simply3.com).

**Technomelt is a registered trademark of Henkel and/or its affiliates in Germany and elsewhere.**

Henkel operates worldwide with leading brands and technologies in three business units: Laundry & Home Care, Beauty Care and Adhesive Technologies. Founded in 1876, Henkel holds globally leading market positions, both in the consumer and in the industrial businesses, with well-known brands such as Persil, Schwarzkopf and Loctite. Henkel employs about 50,000 people and reported sales of 18.1 billion euros and adjusted operating profit of 2.9 billion euros in fiscal 2015. Henkel’s preferred shares are listed in the German stock index DAX.

**Photo material is available at <http://www.henkel.com/press>**

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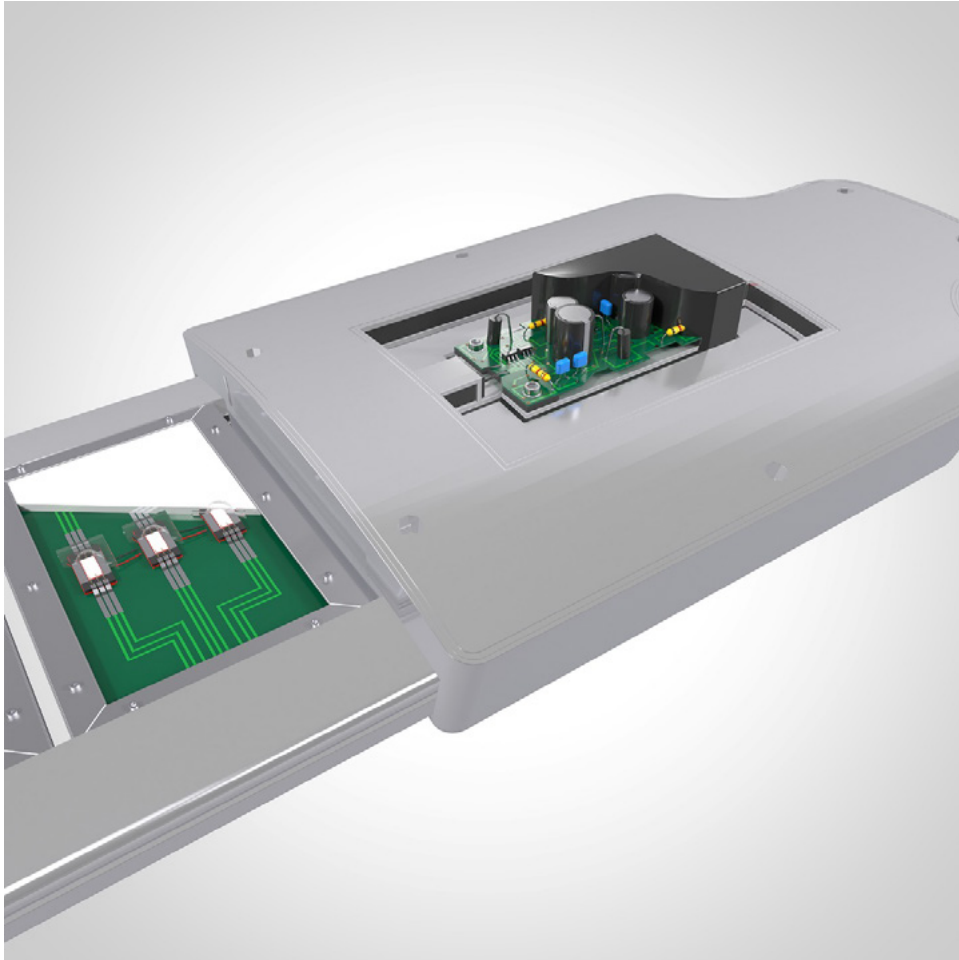
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**The following material is available:**



**Photo Caption:** Henkel's new thermally conductive Technomelt material combines heat dissipation and encapsulation capabilities.