

Press Release

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Loctite TAF Series Films Offer Measurable Temperature Reductions and Design Flexibility for Space-Constrained Products

Thermal Absorbing Films Deliver Robust Heat Management for Handheld Devices

To address the heat management challenges associated with higher functioning, smaller footprint handheld devices, Henkel has formulated a series of novel thermal absorbing films. The Loctite TAF portfolio of materials effectively lowers the CPU and skin temperature of popular handheld devices, enabling improved performance, user comfort and product design latitude.

Handheld device manufacturers strive for a skin (external housing) temperature – generally driven by the CPU heat output – of 40 degrees Celsius or less. Conventional thermal management solutions such as heat spreaders, heat sinks and graphite films have traditionally been employed, but with product dimensions becoming tighter, these solutions are often too large, thick or brittle for today's handhelds.

Henkel's Loctite TAF films resolve these challenges, delivering a thermal solution that has been proven to lower CPU and skin temperature of handhelds by over 3 degrees Celsius. The patent-pending materials offer a unique approach to heat management through their ability to absorb, spread, insulate and dissipate thermal energy generated by ICs.

"Managing the intense heat generated by today's handheld products is one of the biggest challenges facing device designers today," explains Henkel's Jonathan Rowntree, Vice-President of Global Product Management. "While there are current solutions, they are limited in scope and can't offer the contourable construction that will be required for next-generation device geometries."

In passive applications with limited space for fans and heat sinks, thin, flexible film-based mediums are the ideal solution. When Loctite TAF material is placed in contact with the heat source, the material creates an airflow path, through which hot air is forced out of the device. Henkel's unique thermal absorbing film is also dynamic, enabling regulation of heat and management of the CPU temperature rise and fall.

Loctite TAF thermal absorbers are available in customized, pre-cut sizes and thicknesses to accommodate specific application requirements. Immensely versatile, the film thickness and layer constructions can be adapted to create thinner or thicker solutions with multi-axis contourability, enabling orientation over and/or under components. Because the Loctite TAF films are bendable, they offer a more flexible solution for tight spaces as compared to conventional heat management materials which are often brittle and cannot adapt to device architectures.

“Henkel is constantly pushing beyond conventional industry approaches to enable future technology,” says Rowntree in summary. “Our team recognized the need for a robust, flexible response to traditional thermal materials used in passive devices and delivered Loctite TAF films well ahead of market requirements.”

For more information on Loctite TAF thermal absorbing film solutions, log onto www.henkel.com/electronics.

Loctite 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 areas: Laundry & Home Care, Beauty Care and Adhesive Technologies. Founded in 1876, Henkel holds globally leading market positions both in the consumer and industrial businesses with well-known brands such as Persil, Schwarzkopf and Loctite. Henkel employs about 47,000 people and reported sales of 16,510 million euros and adjusted operating profit of 2,335 million euros in fiscal 2012. Henkel's preferred shares are listed in the German stock index DAX.

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

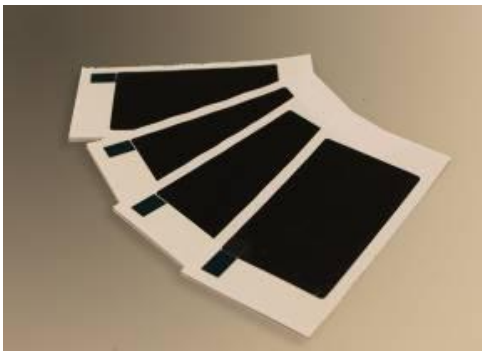
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The following material is available:



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