## Solutions Across the Board

<table>
<thead>
<tr>
<th>GAP PAD®</th>
<th>GAP FILLER and LIQUI FORM</th>
<th>Phase Change Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAP PAD® provide an effective thermal interface between metal module housings and components where air gaps and rough surface textures are present.</td>
<td>BERGQUIST® Gap Fillers are low stress, liquid materials ideal for providing thermal control for fragile, dimensionally complex components and electronic structures. Gap Fillers are available in two-part and one-part versions.</td>
<td>BERGQUIST phase change TIMs are solid at room temperature and, at elevated temperatures, change to liquid to fill gaps and deliver thermal control by providing excellent thermal impedance between components and the metal module housing.</td>
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<tr>
<td>SIL PAD®</td>
<td>BOND PLY</td>
<td>TCLAD</td>
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<tr>
<td>SIL PAD® are an effective thermal interface between metal module housing and components, providing a robust dielectric interface to help meet safety agency requirements.</td>
<td>BOND PLY thermal adhesives offer proven thermal and dielectric performance while eliminating the need for mechanical joining mechanisms such as clips and screws.</td>
<td>TCLAD insulated metal substrates provide a wide range of constructions to meet thermal requirements for applications where conventional FR4 PCB substrates are not sufficient to manage the thermal load. TCLAD substrates are safety agency certified solutions and enable excellent heat transfer for surface mount power components.</td>
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</tbody>
</table>
Solutions Across the Board

Circuit Board Protection – Underfill

LOCTITE® brand underfills are low CTE materials designed to flow and encapsulate array interconnects such as those within CSP, BGA and flip chip components. Underfill solder joint protection significantly enhances reliability performance and reworkable formulations enable preservation of high-value PCBs.

Circuit Board Protection – Potting

Henkel potting materials are available in low outgassing formulations and a variety of viscosities and thermal performance capabilities, offering encapsulation and protection of a broad range of substrates.

Circuit Board Protection – Conformal Coating

Henkel conformal coatings deliver rugged protection of circuit boards without limiting manufacturing throughput, protecting PCBs from moisture, corrosion and other harsh conditions.

Circuit Board Protection – Encapsulant

High-purity, ionically-clean glob top and dam and fill encapsulants offer protection for a components of varying sizes and heights.

Solder

Henkel’s LOCTITE solder pastes are best-in-class halogen-free, temperature-stable (GC series), RoHS-compliant formulations available in standard, water-washable, lead-free and tin-lead solutions.

Peelable Mask

TECHNOMELT® peelable mask is an automated solution for replacement of costly, time-consuming manual masking operations. The material can be automatically dispensed to protect sensitive components during the conformal coating process. Following conformal coating, the mask peels off cleanly, leaving no residue.

The information provided herein, especially recommendations for the usage and the application of our products, is based upon our knowledge and experience. Due to different materials used as well as to varying working conditions beyond our control, we strictly recommend to carry out intensive trials to test the suitability of our products with regard to the required processes and applications. We do not accept any liability with regard to the above information or with regard to any verbal recommendation, except for cases where we are liable of gross negligence or false intention. The information is protected by copyright. In particular, any reproductions, adaptations, translations, storage and processing in other media, including storage or processing by electronic means, enjoy copyright protection. Any exploitation in whole or in part thereof shall require the prior written consent of Henkel AG & Co. KGaA. Except as otherwise noted, all marks used in this document are trademarks and/or registered trademarks of Henkel and/or its affiliates in the US, Germany, and elsewhere. © Henkel AG & Co. KGaA, 10/2018

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Solutions Across the Board

Electrically Conductive Adhesives – Paste

Dispensable and screen printable pastes for the most demanding applications needing both excellent electrical and thermal performance.

Electrically Insulating Adhesives – Paste

Electrically insulating materials for chip attach applications that eliminate concerns of reliability and outgassing.

Electrically Conductive Adhesives – Film

High electrical and thermal performing adhesives in a film format cut exactly to meet your custom specifications.

Electrically Insulating Adhesives – Film

Electrically insulating adhesives in a film format for high strength requirements due to difficult to bond to substrates or CTE mismatch.