

Press Release

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3D InCites Awards Program recognizes Henkel leadership in die attach and underfill materials development

Henkel semiconductor packaging innovations earn Material **Supplier of the Year Award**

Irvine, CA - Henkel today announced that it has earned the Material Supplier of the Year distinction from the 3D InCites community as part of its recent 3DInCites Awards program. The Henkel nomination highlighted the company's launch of several groundbreaking products designed to tackle many challenges facing semiconductor package designers and manufacturers. Formulations that address today's device complexities include robust underfills for leading-edge flip chip devices, versatile die attach film, and high thermal die attach pastes.

Among the new products Henkel's global semiconductor team commercialized over the last year are:

- High-reliability die attach materials including a high-thermal (30 w/m-K), nonsintering paste; an ultra-high thermal (165 W/m-K) pressure-less sintering material; and a bill of materials (BOM) simplification die attach film that can be used for lead frame and laminate packages.
- A novel capillary underfill material for advanced Si node flip chips that balances fast flow capabilities with high filler loading.

"We are honored to have been recognized by the 3D InCites judges and the voting public for our recent innovations," said Henkel Global Market Segment Head for Semiconductor Packaging Materials Ramachandran Trichur. "Our customers continue to push the boundaries of semiconductor packaging to increase performance, reduce size, and gain operational efficiencies. Semiconductor packaging materials are critical to enable these capabilities for the industry. I'm grateful that 3D InCites has helped illuminate the efforts of our global team in these significant areas of semiconductor packaging discovery."

3D InCites is an online information resource focused on semiconductor advanced packaging and heterogeneous integration. This year's 3D InCites Awards program included 36 nominees







across ten categories, with a panel of four judges and results from online voting determining

the winning entries.

Commenting on Henkel's achievement, 3D InCites Editorial Director Françoise von Trapp said,

"Developing solutions for the most pressing materials challenges for today's semiconductor

packaging technologies is no easy feat. To tackle several in one year demonstrates Henkel's

commitment to the future heterogenous integration. Congratulations on winning this award

- it was well deserved."

To discover more about Henkel's full range of semiconductor packaging materials, visit this

<u>link</u>.

About Henkel

With its brands, innovations and technologies, Henkel holds leading market positions worldwide in the industrial and consumer businesses. The business unit Adhesive Technologies is the global leader in the market of adhesives, sealants and functional coatings. With Consumer Brands, the company holds leading positions especially in hair care and laundry & home care in many markets and categories around the world. The company's three strongest brands are Loctite, Persil and Schwarzkopf. In fiscal 2022, Henkel reported sales of more than 22 billion euros and adjusted operating profit of around 2.3 billion euros. Henkel's preferred shares are listed in the German stock index DAX. Sustainability has a long tradition at Henkel, and the company has a clear sustainability strategy with concrete targets. Henkel was founded in 1876 and today employs a diverse team of more than 50,000 people worldwide – united by a strong corporate culture, shared values and a common purpose: "Pioneers at heart for the

good of generations." More information at www.henkel.com

Photo material is available at www.henkel.com/press

Contact

Yeap Wei Ting

Fmail

weiting.yeap@henkel.com

Henkel AG & Co. KGaA

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