

Press Release

Heraeus to introduce new solutions for advanced packaging and miniLED die attach applications at SEMICON China

SHANGHAI, China, March 16, 2021 – Heraeus Electronics will present two state-of-the-art solder paste products at the SEMICON China on March 17-19. Both products offer solutions in response to the increasing demand from the advanced packaging industry in terms of miniaturization, thermal budget management and cost reduction.

Welco AP519

Type 6 solder paste for low temperature processes in SiP, PoP or miniLED attach applications.

The Welco AP519 T6 is a low temperature, state-of-the-art no-clean, lead-free solder paste formulated with Heraeus proprietary Welco powder. It is specifically designed for processes requiring a low peak reflow temperature at 170°C. It ensures best-in-class low void performance, consistent paste release at ultra-fine pitch, minimal solder beading and excellent work life. More importantly, Welco AP519 successfully addresses the challenges of thermal budget management, countering thermal warpage in complex packaging architectures such as SiP, PoP and even miniLED die attach applications. In addition, energy cost can be significantly reduced from the lower reflow temperatures used.

Welco LED100

Type 7 solder paste for ultra-fine pitch miniLED and die attach applications.

The Welco LED100 T7 is a state-of-the-art no-clean printing paste, specifically engineered for miniLED die attach applications, operated in miniLED backlights and displays used in television screens, monitors, tablets, video walls and others. Its paste release performance is exceptional at 70um stencil openings. The product has demonstrated outstanding reliability including thermal cycling and shear strength in miniLED applications. Further unique features of Welco LED100 T7, include minimal solder beading, best-in-class low void performance and excellent work life.

While Welco LED100 has been successfully qualified by a leading LED display manufacturer, Welco AP519 has processed through advanced qualification stages of both major OSATs and LED display manufacturers.

“These two products perfectly address the major trends of advanced packaging applications – miniaturization, thermal budget management and cost reduction. Moreover, given our proprietary Welco powder technology, our products are readily extendable to future fine pitches with smaller types of powders”, says Dr. Klemens Brunner, President of Heraeus Electronics.

While solder pastes play a significant role in industries across the globe, the largest manufacturing market for advanced packaging applications is Asia. Greater China, including Taiwan, as well as Korea, Japan and the SEA region dominate the market. Having its research and development center and manufacturing facility for Welco AP519 and Welco LED100 located in Singapore, Heraeus Electronics is ideally positioned to provide its customers with excellent service.

In addition to the introduction of the new solder pastes, Heraeus Electronics will showcase more innovative solutions to serve the market needs, namely Welco AP5112, a fine pitch solder paste for SiP

applications, AgCoat Prime, an alternative solution for gold bonding wire in the highly competitive Memory, LED and Smartcard market, and mAgic DA295A, a low temperature non-pressure dispensing sinter paste for power electronic applications.

Our experts will provide thought leadership regarding the latest developments by conducting onsite presentations at our booth.

Finally, the newly launched Heraeus Electronics WeChat channel will offer additional touch points for customer engagement and meeting arrangements in our booth #7535 in hall E7.

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About Heraeus

Heraeus, the technology group headquartered in Hanau, Germany, is a leading international family-owned portfolio company. The company's roots go back to a family pharmacy started in 1660. Today, the Heraeus group includes businesses in the environmental, electronics, health and industrial applications sectors. Customers benefit from innovative technologies and solutions based on broad materials expertise and technological leadership.

In the 2019 financial year, Heraeus generated revenues of €22.4 billion with approximately 14,900 employees in 40 countries. Heraeus is now one of the top 10 family-owned companies in Germany and holds a leading position in its global markets. For more information about Heraeus, please visit: <https://www.heraeus.com>.

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