

Press Release**Heraeus Electronics showcases new portfolio for next-generation power electronics and semiconductor advanced packaging at SEMICON Korea 2023**

Seoul, Korea – 27 January 2023.

For the first time, Heraeus Electronics will exhibit at SEMICON Korea, scheduled to take place February 1-3, 2023, at COEX in Seoul, Korea. At the exhibition, Heraeus Electronics will show a wide range of innovative materials to enhance power modules and semiconductor device performance.

5G communication increases bandwidth, reduces latency and provides faster switching speed. RF amplifiers are critical for 5G high-speed switching. With WBG semiconductors, operating temperature increases above 175°C affecting reliability negatively. Higher temperature can have negative effects on efficiency and also can reduce both performance and reliability.

Heraeus Electronics will display three of its newest products that offer solutions to thermal dissipation, miniaturization, and defect challenges: mAgic® DA320, Welco AP520 and AP500X.

mAgic® DA320 is a high shear strength, non-pressure dispensing sinter paste for die attach of power applications. The new sinter paste, featuring fast sintering, high shear strength and high thermal conductivity, is ideal for Silicon Carbide (SiC), Gallium Nitride (GaN) and other top-of-the-line power devices.

Welco AP520 is a state-of-the-art water-soluble type 7 printing paste designed to solve the challenges of miniaturization, as it can create tiny and reliable joints with close to zero defects. With excellent paste release down to 90 µm pitch (55 µm stencil opening and 35 µm line spacing), no splashing and best-in-class low void performance, AP520 makes an excellent choice for fine-pitch components and flip chip attach for next-generation System-in-Package applications used in 5G communications, smart-wearables, and electric vehicles.

AP500X is a water-soluble, halogen-free tacky flux specifically engineered for ultra-fine bump-pitch flip chip attach and BGA attach applications. This new carefully designed flux plays an important part in eliminating defects such as cold joints, solder creeping, die shifting, voiding, underfill delamination, etc. in advanced semiconductor packages for high performance computing, memory, mobile and more.

As part of its drive to achieve greater sustainability, Heraeus Electronics offers an extended product portfolio with gold bonding wire made with 100 percent recycled gold and Welco solder paste series made with 100 percent recycled tin. Both gold and tin suppliers comply with Responsible Materials Initiatives (RMI) and ISO14021:2016. Heraeus Materials Singapore also is certified with UL2809 in accordance with ISO14021:2016.

With the latest materials portfolio and technical know-how, Heraeus Electronics is prepared to support customers in response to trends and challenges for EV (Electric Vehicles), 5G communications, IoT (Internet of things), AI (Artificial Intelligence), HPC (High Performance Computing) and environmental sustainability.

Visit Heraeus in booth C762 at SEMICON Korea to explore more.

To learn more about Heraeus Electronics, visit www.heraeus-electronics.com.

About Heraeus

The Heraeus Group is a broadly diversified and globally leading family-owned technology company, headquartered in Hanau, Germany. 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 2021 financial year, the FORTUNE Global 500 listed group generated revenues of €29.5 billion (US\$34.9 billion*) with approximately 16,200 employees in 40 countries. Heraeus is one of the top 10 family-owned companies in Germany and holds a leading position in its global markets.

About Heraeus Electronics

Heraeus Electronics is a leading manufacturer of materials for the assembly and packaging of devices in the electronics industry. The company develops materials solutions for the automotive, power electronics and advanced semiconductor packaging market and offers its customers a broad product portfolio - from materials and material systems to services.

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