Press Release

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Heraeus presents world’s first gold-coated silver bonding wire for semiconductor technology to ensure high performance at significant lower cost

In the highly competitive memory market, no adequate substitute for gold bonding wire has been developed – until now. With AgCoat Prime, Heraeus Electronics introduces gold-coated silver bonding wire that provides the bondability and reliability of gold wire, enabling significant net cost savings.

Memory devices in the semiconductor industry rely heavily on gold for wire bonding. However, today’s electronics devices are hungry for ever more memory, with big data storage driving demand. At the same time, the need for cost-efficient production has led manufacturers to seek alternatives to gold bonding wires. Heraeus has now developed the world’s first solution to this challenge: AgCoat Prime.

AgCoat Prime is a silver alloy bonding wire coated with a layer of gold. “Bondability and reliability performance are the most important aspects of this development,” says Eric Tan, Director, Product Management at Heraeus Electronics. “Customers can be sure that our new product achieves the same performance as gold wires at significantly lower cost.”

Alternative to gold bonding wire

Because the specifications of AgCoat Prime are closely aligned to gold bonding wire, no inert gas is required, so no investment or changes to production equipment and facilities are necessary. It offers essentially a plug-and-play solution for ball bonding machines – and at every level, Heraeus supports customers in optimizing their AgCoat Prime applications.

In 2018, gold made up 36 percent of the global bonding wire market. For many semiconductor applications, silver, bare copper and copper-palladium wire have become established alternatives. Gold
coated silver wire now opens the door to create a similar change within the memory device market.

The solution to change

With AgCoat Prime Heraeus has developed the first viable solution to cutting costs while maintaining the required quality. As a leading supplier of bonding wires, Heraeus again leads in providing a new solution for customers in the memory market.

About Heraeus
A globally leading technology group, Heraeus is headquartered in Hanau, Germany. Founded in 1851, it is a family-owned portfolio company which traces its roots back to a pharmacy opened by the family in 1660. Today, Heraeus combines businesses in the environmental, energy, electronics, health, mobility and industrial applications sectors. In the 2017 financial year, Heraeus generated revenues of €21.8 billion. With approximately 13,000 employees in 40 countries, the FORTUNE Global 500-listed company holds a leading position in its global markets. Heraeus is one of the top 10 family-owned companies in Germany.

With technical expertise, a commitment to excellence, a focus on innovation and entrepreneurial leadership, we are constantly striving to improve our performance. We create high-quality solutions for our clients and strengthen their long-term competitiveness by combining unique material expertise with leadership in technology.

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Caption: AgCoat Prime by Heraeus is the world’s first gold-coated silver bonding wire for semiconductor technology.