

## Press Release

Hanau, 15/11/2017

### **Innovation at Productronica: Heraeus Electronics introduces no-clean solder pastes with a low melting point for energy efficient and cost-cutting soldering processes**

**No-clean soldering pastes from Heraeus reduce energy consumption by up to 40 percent and contribute to lower costs in the production of electronic modules.**

Heraeus Electronics, a leading supplier of material solutions for the semiconductor and electronics industry, is expanding its range of no-clean soldering pastes with a low melting point. The new F498 product series allows significant cost savings in the soldering process.

The new series of soldering pastes is characterized by a low void rate and outstanding wetting properties on a wide range of different surfaces. This reduces the formation of solder balls (mid-chip balling). The lower temperature in the reflow process reduces energy consumption, saving energy costs. Low-melting soldering pastes use up to 40 percent less energy, resulting in a corresponding reduction in carbon emissions. Longer cleaning intervals due to the lower temperatures reduce maintenance costs.

There are also other advantages related to the lower temperatures for soldering processes: Up until now, components and circuit boards were subjected to temperatures of around 250°C when using traditional lead-free soldering pastes. Soldering pastes with a low melting point from Heraeus Electronics allow the soldering temperature to be reduced by around 70 to 80°C. Components and circuit boards are subjected to less temperature stress allowing lower-cost components to be used. In addition, these soldering pastes can be used to mount components with lower temperature specifications such as those from optoelectronics or the LED industry.

“Our products are used in sophisticated production environments, and our customers demand durable yet low-cost solutions. We have succeeded in this with our new no-clean soldering pastes. These pastes reduce energy costs, contribute to lower carbon emissions and can be used in more applications,” notes Stefan Merlau, Product Manager at Heraeus Electronics. “Heraeus Electronics is continually growing its product portfolio with the aim of providing materials for all specifications from a single supplier.”

Heraeus Electronics will present its range of products at Productronica at booth 442/hall A4 at the Munich convention center from November 14–17.

In addition to the no-clean soldering pastes, the exhibit will also include heater pastes for numerous new surfaces like glass, metal, polymers and oxide and ceramic substrates.

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Heraeus, the technology group headquartered in Hanau, Germany, is a leading international family-owned company formed in 1851. With expertise, a focus on innovations, operational excellence and an entrepreneurial leadership, we strive to continuously improve the businesses of our customers around the world.

We create high-quality solutions for our customers and strengthen their long-term competitiveness by combining material expertise with technological know-how. Our ideas are focused on important issues such as the environment, energy, health, mobility and industrial applications. Our portfolio ranges from components to coordinated material systems which are used in a wide variety of industries, including the steel, electronics, chemical, automotive and telecommunications industries.

In the 2016 financial year, Heraeus generated revenues without precious metals of €2.0 bn and a total revenue of €21.5 bn. With approximately 12,400 employees worldwide in more than 100 subsidiaries in 40 countries, Heraeus holds a leading position in its global markets. In 2016, the Foundation for Family Businesses named Heraeus as one of the "Top 10 Family Businesses" in Germany.

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