

## Press release

Hanau, Germany, June 5<sup>th</sup>, 2018

### **Primetime for power electronics: Heraeus Electronics introduces new flagship metal ceramic substrate Condura.prime**

Heraeus Electronics, a leading provider of materials solutions for the semiconductor and electronic packaging industries, showcases the new premium metal ceramic substrate Condura.prime (AMB-Si<sub>3</sub>N<sub>4</sub>) as well as the associated substrate family Condura at PCIM trade fair in Nuremberg.

#### **E-mobility drives demand for power electronic modules**

Condura.prime is an active metal brazed silicon nitride substrate (Si<sub>3</sub>N<sub>4</sub>), which offers a variety of benefits compared to other metal ceramic substrates. It is vested with excellent mechanical properties ensuring high bending strength and high fracture toughness. Furthermore, Condura.prime offers outstanding thermal conductivity for heat dissipation and is therefore ideal for high-performance power electronic modules used in automotive, energy and traction applications.

Power electronic modules are in particular needed for the growing e-mobility market. With an increasing number of hybrid and electric vehicles, the industry is demanding efficient, economical, and reliable power electronic components. It is expected that demand for silicon nitride ceramic substrates with high reliability will increase in the future by expanded use in power semiconductor modules installed in electric drivetrains.

#### **Condura – a new family of metal ceramic substrates**

In addition to its premium product Condura.prime, Heraeus Electronics offers a comprehensive portfolio of metal ceramic substrates to optimally address customers' requirements. The Condura family consists of the flagship product Condura.prime (AMB-Si<sub>3</sub>N<sub>4</sub>), Condura.extra (DCB-ZTA) with enhanced mechanical stability to improve module reliability and processability as well as Condura.classic (DCB-Al<sub>2</sub>O<sub>3</sub>), the long-proven standard for the power electronics industry.

#### **Services beyond the product**

To improve yield, lower production risks and to avoid cleaning steps, Heraeus Electronics also introduces Condura Plus. Metal ceramic substrates can be equipped with pre-applied flux-free solder pads for die attach. This cuts the steps for die attach in half, simplifying the soldering process significantly.

Heraeus Electronics also offers reliable IATF 16949 certified supply of the Condura portfolio. IATF 16949 is the technical specification introduced upon request by car manufacturers to build and certify a standard in the quality management system of suppliers. Engineering Services including simulation, prototype design and assembly as well as testing and analyses, make Heraeus Electronics the one-stop materials solutions partner for all power electronics applications.

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## **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.

## **About Heraeus Electronics**

Heraeus Electronics - a Global Business Unit of the Heraeus Group - is one of the leading manufacturers of materials for the assembly and packaging of devices in the electronics industry. The company develops sophisticated material solutions for consumer electronics and computing, automotive, LED, power electronics and communications. Core competences include bonding wires, assembly materials, thick film pastes, as well as roll clad strips and substrates, and their integration into perfectly matched systems.

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