

Heraeus



## Material Systems for Automotive Electronics

# Material Systems for Automotive Electronics

Heraeus is a leading supplier of contact springs, components, and material systems to the automotive and electronics industry. Our innovative products are developed in close cooperation with our customers to ensure the optimal performance in the final application. The function of an electronic module or circuit depends not just on the performance of each individual material, but how all of the materials work together in the final application. Heraeus supports OEMs in the automotive industry to select the right combination of materials to build up reliable circuits and modules. You will find our materials and systems in various applications, such as power electronic modules, control devices, ABS, and airbags. With Heraeus know-how and expertise in various technologies you are able to build an entire system from a single source. We would like to describe two applications in more detail:

## Fuel Senders

The fuel level sender must work in aggressive fuels. Therefore it is essential the materials used exhibit superior resistance and reliability.

## Fuel Senders – Heraeus Materials Inside

- **Conductor and resistor pastes:**  
Business Unit Circuits & Components
- **Solder pastes:**  
Business Unit Assembly Materials
- **Contact pins for wipers:**  
Electrical Contacts Technology

### Material Recommendation: Fuel Sender

Contact pins for wipers

Solder paste SAC 305: F645

Resistor paste R 8916 CR

Conductor paste C 2220



### Transmission Controller

Different types of materials and functions are combined on this circuit board. All the materials and components must match together well to ensure a high and long lasting performance of the entire circuit.

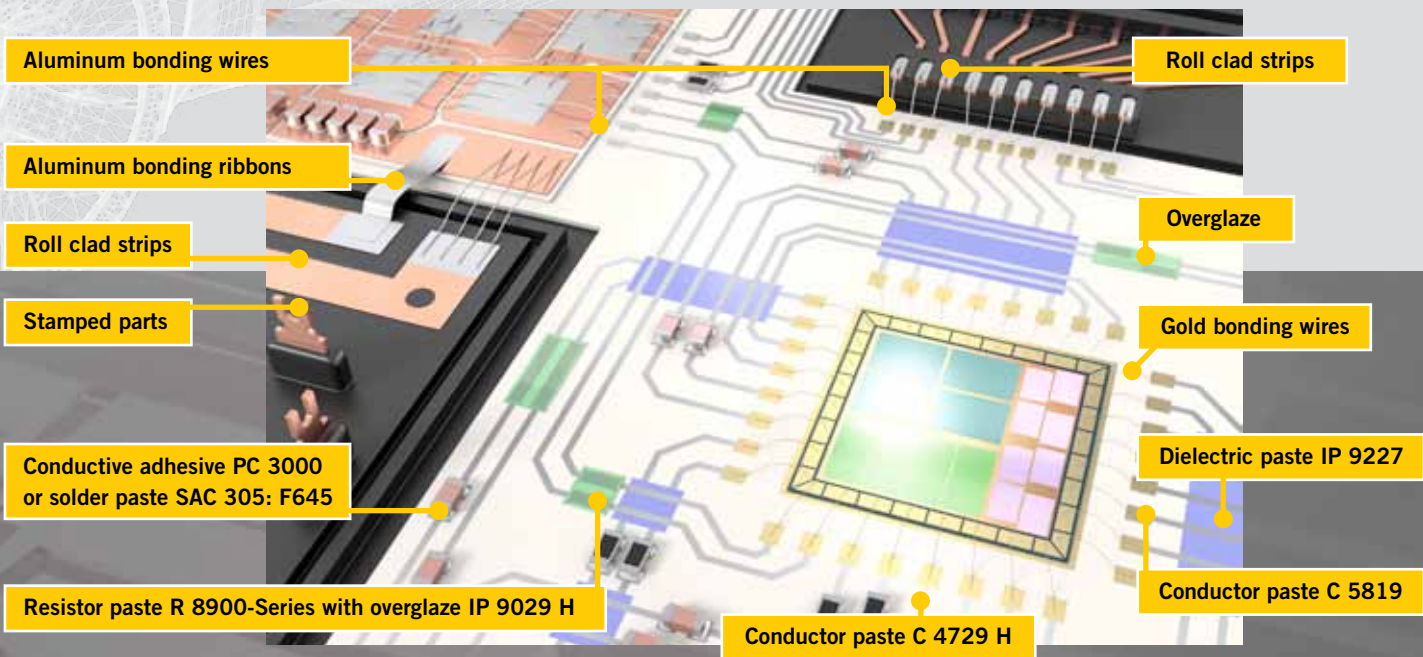
#### Product Overview

- Thick Film conductor-, resistor- and dielectric pastes as well as overglazes
- Solder pastes and adhesives
- Bonding wires
- Bonding ribbons
- Electrical contacts
- Stamped parts
- Roll clad strips

### Transmission Controller – Heraeus Materials Inside

- **Conductor, resistor, dielectric and component pastes, overglaze:**  
Business Unit Circuits & Components
- **Solder pastes and adhesives:**  
Business Unit Assembly Materials
- **Bonding wires:**  
Business Unit Bonding Wires
- **Roll clad strips and stamped parts:**  
Packaging Materials Division

#### Material Recommendation: Transmission Controller



**Heraeus Precious Metals GmbH & Co. KG**

Electronic Materials Division  
Business Unit Circuits & Components  
Heraeusstrasse 12 – 14  
63450 Hanau, Germany  
Phone +49 6181.35-5466  
Fax +49 6181.35-7850  
cc-info@heraeus.com

**Heraeus Materials Technology GmbH & Co. KG**

Contact Materials Division  
Business Unit Assembly Materials  
Heraeusstrasse 12 – 14  
63450 Hanau, Germany  
Phone +49 6181.35-4233  
Fax +49 6181.35-7860  
cmdinfo@heraeus.com

**Heraeus Materials Technology GmbH & Co. KG**

Contact Materials Division  
Business Unit Bonding Wires  
Heraeusstrasse 12 – 14  
63450 Hanau, Germany  
Phone: +49 6181.35-5591  
Fax: +49 6181.35-5179  
bonding.wires@heraeus.com  
www.heraeus-contactmaterials.com

**Heraeus Materials Technology  
GmbH & Co. KG**

Packaging Materials Division  
Heraeusstrasse 12 – 14  
63450 Hanau, Germany  
Phone + 49 (0) 6181.35-5029  
Fax + 49 (0) 6181.31-728  
thomas.blobner@heraeus.com

**Heraeus Materials Technology  
GmbH & Co. KG**

Functional Materials Division  
Heraeusstrasse 12 – 14  
63450 Hanau, Germany  
Phone +49 6181.35-5116  
Fax +49 6181.35-3120  
ingo.prunzel@heraeus.com