Polytec PU 1000 – Dual Interface Smart Cards

Background

Dual interface smart cards feature two data interfaces for the communication with a card reader, a contact chip and an RFID antenna. A reliable electrical connection between the chip module and the antenna is a vital aspect for the long term reliability of dual interface cards. The use of electrically conductive polymer materials such as adhesives is a widely used method for establishing the connection between chip and antenna.

Solution

Polytec PU 1000, an electrically conductive polyurethane adhesives provides an optimum solution for the RFID – chip connection.

Features & Benefits

- ✓ One component material
- ✓ Room temperature storage and handling
- ✓ Can be integrated into the chip embedding process
- ✓ Curing in one step together with thermosetting of the hotmelt used to attach the chip module
- ✓ Room temperature curing if desired
- ✓ No pot life limitation
- ✓ Easy to dispense
- ✓ Good adhesion to card substrate, antenna and chip module
- ✓ Higly flexible

Technical Data

Polytec PU 1000		
Number of components	1	
Shelf life @ 23°C	6	Months
Consistency	Creamy paste	
Viscosity	2000 - 3000	mPa s
Setting time @ 23°C*	10 – 20	Min
Setting time @ 200°C**	3	Sec
Volume resistivity	1-2 E-04	Ohm cm

*: depending on substrate and bond line thickness
**: using thermodes