For the Embedding of Modules in Smart Cards
OUR SOLUTIONS FOR RELIABLE BONDING

Contact cards

As one of the leading suppliers for adhesive solutions, we have been serving the Smart Card industry for many years with high quality products. Launched in the 1980’s, the market of Contact Cards is growing year after year and represents more than 80% of the Smart Card market. SIM, Payment and Identity Cards are used in our daily life.

Permanent bonding of a chip module into the cavity of substrates is crucial for all Smart Card manufacturers to ensure the proper functioning in our daily applications. For Contact Card assembly processes, we offer tesa® HAF, a complete range of Heat Activated Films with a high level of bonding strength to a variety of card substrates.

Advantages of using tesa® HAF products:

- Long-term reliable chip bonding
- Suitable for PVC, ABS, PET and PC substrates
- Good workability on all common implanting lines

Advantages of using tesa® ACF products:

- Long-term reliable chip bonding and electrical connectivity in one step
- Good workability on all common implanting lines (Any investment in machines dedicated to DI Cards)
- Suitable for PVC, ABS, and PC substrates

Dual interface cards

The market of Dual Interface Cards (DI Card) is booming, especially in Payment and Identity Cards. Dual Interface Cards require a reliable connection between the antenna and the chip module. For Dual Interface Card assembly processes, we offer tesa® ACF 8414, an Anisotropic Conductive Film adapted to your common implanting lines without investments. Mechanically embedding the module and electrically contacting the antenna are now performed in one single step as easy as the assembling of Contact Cards.

Advantages of using tesa® ACF products:

- z-axis conductive HAF tapes

Technical Data

<table>
<thead>
<tr>
<th>HAF (Heat activated film)</th>
<th>ACF (Anisotropic activated film)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application</strong></td>
<td>Contact Cards</td>
</tr>
<tr>
<td><strong>Type of cards</strong></td>
<td>Telco/SIM, payment, identity, health, etc.</td>
</tr>
<tr>
<td><strong>Material</strong></td>
<td>tesa® HAF</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>Brown</td>
</tr>
<tr>
<td><strong>Temperature of die [°C]</strong></td>
<td>150-180</td>
</tr>
<tr>
<td><strong>Time [sec]</strong></td>
<td>0.7-1.2</td>
</tr>
<tr>
<td><strong>Pressure [N/module]</strong></td>
<td>65-75</td>
</tr>
</tbody>
</table>

For the Temporary Bonding of Smart Cards

OUR CARD ATTACHMENT SOLUTIONS

For further information about attaching cards to letters we also offer the tesa® Card Attachment Folder.

TECHNICAL DATA
**Exclusive application testing**

In our application laboratories, we analyze the customers’ materials in combination with several adhesive tape solutions. Depending on customer-specific demands, our analysis includes push-out tests, bending in various conditions, parameter and climate tests, and much more. The result: adhesive tape solutions that perfectly suit any technical application.

tesa® products prove their impressive quality day in, day out in demanding conditions and are regularly subjected to strict controls. All technical information and data above mentioned are provided to the best of our knowledge on the basis of our practical experience. They shall be considered as average values and are not appropriate for a specification. Therefore tesa SE can make no warranties, express or implied, including, but not limited to any implied warranty of merchantability or fitness for a particular purpose. The user is responsible for determining whether the tesa® product is fit for a particular purpose and suitable for the user’s method of application. If you are in any doubt, our technical support staff will be glad to support you.
Our management system is certified according to the standards ISO 9001, ISO/TS 16949, and ISO 14001.