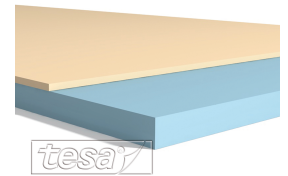




# tesa HAF® 8440 HS



## Product Information

40µm/1.6 mils translucent HAF mounting tape

## Product Description

tesa HAF® 8440 is a heat activated, double-sided translucent adhesive film based on thermoplastic copolyamide.

Special Features:

- \*Reliable chip module bonding
- \*Suitable for PVC, ABS and PC cards
- \*Good workability on all common implanting lines
- \*Good ageing resistance
- \*Invisible on assembled card

## Application Fields

tesa HAF® 8440 is especially designed for the embedding of chip-modules into smart cards.

## Technical Information (average values)

The values in this section should be considered representative or typical only and should not be used for specification purposes.

## Product Construction

- |                    |          |                    |                   |
|--------------------|----------|--------------------|-------------------|
| • Type of liner    | glassine | • Type of adhesive | copolyamide       |
| • Backing material | none     | • Total thickness  | 40 µm<br>1.6 mils |

## Properties/Performance Values

- Bonding strength 12 N/mm<sup>2</sup>

## Additional Information

Technical Recommendations:

The following values are recommendation for machine parameters to start with. Please note that optimum parameters strongly depend on the type of machine, particular materials for card bodies and chip-modules as well as customer requirements.

### 1. Pre-lamination:

During pre-lamination, the adhesive tape is laminated onto the module belt. This step can be performed inline or offline. The pre-lamination step does not effect the shelf life time of the adhesive tape.

Machine setting:

- Temperature 130 - 140 °C (266-284 °F)
- Pressure 2 - 3 bar

For latest information on this product please visit <http://l.tesa.com/?ip=08440>



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## Product Information

### Additional Information

- Time 2.5 m/min

#### 2. Module Embedding:

During module embedding, the pre-laminated modules are die cut from the module belt, positioned into the card cavity and permanently bonded to the card body by heat and pressure. For this step, the exact handling depends on the type of the implanting line used. Single step and multiple step can be used. Today, multiple step is common:

Single step process - Machine setting :

- Temperature<sup>1</sup> 180 – 220 °C (356-428 °F)
- Pressure 65 - 75 N/module
- Time 1.5 s

Multiple step process (2 or more heating stamps) - Machine setting:

- Temperature<sup>1</sup> 180 – 220 °C (356-428 °F)
- Pressure 65 - 75 N/module
- Time 2 x 0,7 s. /3 x 0.5 s

<sup>1</sup> Temperature as measured inside the heating stamp. Different temperature settings are recommended for different card material:

\*PVC 180 - 190 °C (356-374 °F)

\*ABS 180 - 190 °C (356-374 °F)

\*PC 200 - 220°C (392-428 °F)

For applicants other than chip module implanting, different machine parameters should be used.

Bonding strength values were obtained under standard laboratory conditions. Value is guaranteed clearance limit checked with each production batch (Material: Etched aluminium test specimen / Bonding conditions: Temp. = 120 °C/248 °F; p = 10 bar; t = 8 min)

Storage conditions according to tesa HAF<sup>®</sup> shelf life concept.

## Disclaimer

tesa<sup>®</sup> products prove their impressive quality day in, day out in demanding conditions and are regularly subjected to strict controls. All information and recommendations are provided to the best of our knowledge on the basis of our practical experience. Nevertheless 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. Therefore, the user is responsible for determining whether the tesa<sup>®</sup> 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.

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