

tesa® HAF 8410 HS

Heat activated film for the embedding of chip-modules into smart cards

PRODUCT INFORMATION

Product Description

tesa® HAF 8410 HS is a heat activated double-sided brown adhesive film based on reactive phenolic resin and nitrile rubber.

Main Application

tesa® HAF 8410 HS is designed for the embedding of chip-modules into smart cards with high security and long life requirements.

- Suitable for PVC, ABS, PET and PC cards
- Good workability on all common implanting lines
- Outstanding age-resistance
- Lifelong flexibility due to high rubber content

Technical Data

■ Backing material	none	■ Bonding strength	12 N/mm ²
■ Color	amber		1740.5 lbs/in ²
■ Total thickness	60 µm 2.4 mils	■ Shelf life time < 5°C	18 months
		■ Shelf life time < 15°C	15 months
■ Type of adhesive	nitrile rubber / phenolic resin	■ Shelf life time < 25°C	12 months
■ Type of liner	glassine		

For latest information on this product please visit <http://l.tesa.com/?ip=08410>

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tesa tape, inc.

5825 Carnegie Boulevard
Charlotte, NC 28209
Phone: 704 554 0707
Toll Free: 800 426 2181
Fax: 800 852 8831
customer care@tesatape.com

www.tesatape.com

Technical Tape México S.A. de C.V.

Av. Santa Fe No. 170
German Centre P 6-3-3Col.
Lomas de Santa Fe
Mexico D.F. C.P. 01210
Phone: +52 (55) 5292 6978
Fax: +52 (55) 5292 6977

tesa® 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, expressed 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® 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 advise you.

Additional Info

Technical Recommendations for smart card applications:

The following values are recommendations 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. Pre-laminated module belts can be stored over the same period of time as the adhesive tape.

Machine setting:

- Temperature 120 – 140 °C
- Pressure 4 – 6 bar
- Time 1,5 – 3,0 s

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. For this step, the exact handling depends on the type of the implanting line used. Today, two different ways are most common:

Single step process - Machine setting (low temperature):

- Temperature¹ 160 – 180 °C
- Pressure 65 N/module
- Time 2,0 – 4,0 s

Single step process - Machine setting (high temperature):

- Temperature¹ 180 – 200 °C
- Pressure 65 N/module
- Time 1,0 – 1,5 s

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

- Temperature¹ 170 – 200 °C
- Pressure 65 N/module
- Time (for each step) 0,7 – 1,2 s

¹ Temperature as measured inside the heating stamp

For applications other than smart cards, different machine parameters should be used. Storage conditions according to tesa® HAF shelf life concept.

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

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