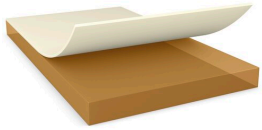
tesa HAF® 8430

Product Information



45 µm / 1.8 mils amber reactive HAF mounting tape

Product Description

tesa HAF® 8430 is a reactive heat activated film based on phenolic resin and nitrile rubber. This amber double sided tape has no backing. It is protected by a strong paper liner and can easily be slit and die cut.

It is activated by heat and pressure applied over a certain period of time.

Product Features

- Reliable chip module bonding
- Suitable for PVC, ABS, PET, and PC cards
- Good workability on all common implanting lines
- Outstanding ageing resistance
- Lifelong flexibility due to high rubber content
- At room temperature tesa HAF® 8430 is not tacky.

Application Fields

tesa HAF® 8430 is especially designed for the embedding of chip-modules into smart cards. It is also suitable for bonding of all thermal resistant materials such as metal, glass, plastic, wood and textiles e.g. friction liners for clutches).

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

• Backing	none	• Total thickness	45 µm 1.8 mils
• Type of adhesive	nitrile rubber / phenolic resin	• Color	amber
• Type of liner	glassine		

Properties/Performance Values

• Bonding strength (dynamic shear)	12 N/mm^2	• Bonding strength (push-out)	12 N/mm^2

Additional Information

Technical recommendations for Smart Card applications:

tesa HAF® 8430 is not self adhesive. It is activated by heat and pressure over a certain interval. 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.

For latest information on this product please visit http://l.tesa.com/?ip=8430

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Additional Information

1. Pre-lamination:

During pre-lamination, the adhesive tape is laminated onto the module belt. The pre-lamination step does not affect the shelf life time of the adhesive tape. Pre-laminated belts can be stored over the same period of time as the adhesive tape.

Machine setting:

- Temperature: 120–140 °C (248-284 °F)
- Pressure: 2–3 bar
- Time: 2.5 m/min

2. Module embedding:

During module embedding, the pre-laminated modules are cut from the module belt, positioned into the card cavity and permanently bonded to the card body by heat and pressure. Depending on the type of implanting line, single-step or multiple-step process are possible. Today, most implanting machines have multiple heat press steps.

Single-step process - machine setting:

- Temperature[1]: 180–200 °C (356-392 °F)
- Pressure: 65–75 N/module
- Time: 1.5 s

Multiple-step process - machine setting:

- Temperature[1]: 180–200 °C (356-392 °F)
- Pressure: 65–75 N/module
- Time: 2 x 0.7 s / 3 x 0.5 s

[1] Temperature measured inside the heating stamp. Different temperature settings recommended for different card materials:

PVC and ABS: 180–190 °C (356-374 °F)

PET and PC: 190–200 °C (374-392 °F)

Bonding strength values were obtained under standard laboratory conditions. Value is specification limit checked for each production batch (Material: SUS test specimen / bonding conditions: temperature = 180 °C; pressure = 10 bar; time = 30 sec). To reach maximum bonding strength, surfaces should be clean and dry.

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Product Information

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