

tesa HAF® 8405

Product Information



30µm / 1.2 mils amber reactive structural bonding film

Product Description

tesa HAF® 8405 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

- Very high bonding strength
- High temperature resistance
- Excellent chemical resistance
- Resistance against oil and solvents
- Bonds remain flexible and elastic

Application Fields

It is suitable for bonding of all thermal resistant materials such as metal, glass, plastic, wood and textiles.

- High-strength splicing (overlap splice)
- Structural bonding
- Magnet bonding in electric motors
- 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 | 30 µm |
| • Type of adhesive | nitrile rubber /
phenolic resin | • Color | 1.2 mils
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

Processing

For latest information on this product please visit <http://l.tesa.com/?ip=8405>

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tesa HAF® 8405 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 as well as customer requirements.

1. Pre-lamination: tesa HAF® 8405 is laminated before curing. For this process we recommend a temperature between 120°C / 248°F and 140°C / 284°F.

2. Bonding: The bonding conditions temperature, pressure and time depend on the application. Following parameters can be regarded as a guideline:

Splicing application:

- Temperature: 120-220 °C (248-428 °F)
- Pressure: >2 bar
- Time: 15–90 s.

Friction liners for clutches:

- Temperature: 180–230 °C (356-446 °F)
- Pressure: > 8 bar
- Time: 3–30 min

Magnet bonding:

- Temperature: 140–180 °C (284-356 °F)
- Pressure > 6-10 bar
- Time: 2-5 min

Structural bonding:

- Temperature: 180–220 °C (356-428 °F)
- Pressure: > 10-15 bar
- Time: > 3-30 min

Bonding strength values were obtained under standard laboratory conditions. Value is guaranteed clearance limit checked with 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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