

tesa HAF® 9405

Product Information



30 µm / 1.2 mils amber reactive structural bonding film

Product Description

tesa HAF® 9405 is a reactive heat activated structural bonding 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.

At room temperature tesa HAF® 9405 is not tacky. It is activated by heat and starts to become tacky at 90 °C / 194 °F for pre-lamination. In a second application step heat and pressure is 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.

- Friction linings for clutch discs
- Friction linings for synchronizer rings
- Brake shims

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=9405>

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1. Pre-lamination:

tesa HAF® 9405 is laminated to the first substrate before curing. For this process we recommend a temperature between 90 °C / 194 °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:

Friction linings for clutch discs:

- Temperature: 180–230 °C (356–446 °F)
- Pressure: > 6 bar
- Time: 3–30 min

3. Tempering (optional)

To reach the maximum bonding strength the bonded parts can be tempered at 180-230 °C (356-446 °F) for 30-60 min without pressure.

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. Storage conditions according to tesa HAF® shelf life concept.

Disclaimer

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