tesa® HAF 9405

Product Information

30 µm 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 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 material	none	Total thickness	30 µm
Type of adhesive	nitrile rubber / phenolic resin	Colour	amber
Type of liner	glassine		

Properties/Performance Values

Bonding strength (dynamic shear)	12 N/mm²	Bonding strength (push-out)	12 N/mm²

Additional Information

Processing:

For latest information on this product please visit http://l.tesa.com/?ip=9405

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Additional Information

1. Pre-lamination:

tesa HAF® 9405 is laminated to the first substrate before curing. For this process we recommend a temperature between 90 °C and 140 °C.

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
- 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 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

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, 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® 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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