

# tesa HAF® 8471

## **Product Information**



30 µm / 1.2 mils amber reactive structural bonding film

## **Product Description**

tesa HAF® 8471 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.

It is activated by heat and pressure applied during the assembly process.

### **Product Features**

- · Extremely high performance, even on small bonding areas and thin design gaps
- · Reliable and ageing-resistant bonds
- · Very low oozing ratio
- · Suitable for long-term applications that are exposed to heavy stress
- · Free of halogen and compliant with current ROHS standards

## **Application Fields**

tesa HAF® 8471 is especially recommended for bonding of metal components to metal surfaces or heat resistant plastics, e.g. SUS or AL to PI, PMMA or ABS:

- · Constructive bonding inside electronic devices
- FPC bonding
- Button fixation
- · Camera lens and bezel mounting
- Bonding of decorative metal components

## 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 /			1.2 mils
		phenolic resin	•	Color	amber

Type of liner glassine

## **Properties/Performance Values**

Bonding strength (push-out)
11 N/mm<sup>2</sup>

### **Additional Information**

Technical recommendations:



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tesa HAF® is not self adhesive. It is activated by heat and pressure over a certain interval. The following values are recommendations for bond line parameters to start with.

#### 1. Pre-lamination:

During pre-lamination, the adhesive tape is laminated onto the first substrate. This step does not affect the shelf life time of the adhesive tape. Pre-laminated components can be stored over the same period of time as the adhesive tape.

### setting:

- Temperature<sup>1</sup> 95-120 °C (203-248 °F)
- Pressure<sup>2</sup> 2-6 bar
- Time 3-10 s

### 2. Bonding:

Remove the liner from tape after pre-lamination step. Place the pre-laminated part onto the second substrate. Apply sufficient temperature while applying pressure for the bonding time to reach sufficient bonding strength.

### setting:

- Temperature<sup>1</sup> 120-250 °C (248-482 °F)
- Pressure<sup>2</sup> 5-30 bar
- Time 5-180 s

Temperature, pressure and time will depend upon the type and thickness of the substrates. Generally, thicker substrates or lower bonding temperatures will require longer bonding times. To achieve optimum performance a cooling step (while applying pressure) directly after the bonding step is recommended.

Bonding strength values were obtained under standard laboratory conditions. (Material: etched aluminum test specimen / bonding conditions: temperature =  $180 \, ^{\circ}\text{C}$  /  $356 \, ^{\circ}\text{F}$ ; pressure =  $10 \, \text{bar}$ ; time =  $7 \, \text{sec}$ ).

To reach maximum bonding strength surfaces should be clean and dry. Storage conditions according to tesa HAF® shelf life concept.

<sup>&</sup>lt;sup>1</sup> 'Pre-lamination' and 'Bonding' temperature refer to the data that is measured in the bond line.

<sup>&</sup>lt;sup>2</sup> 'Pre-lamination' and 'Bonding' pressure refer to the force that is transformed from jig surface directly to the bonding area.



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## Disclaimer

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