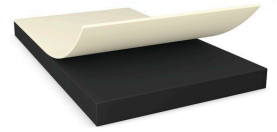


# 58471

## Product Information



30µm black reactive structural bonding film

### Product Description

tesa HAF® 58471 is a reactive heat activated structural bonding film based on phenolic resin and nitrile rubber. This black 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® 58471 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 / phenolic resin | • Color           | black |
| • Type of liner    | glassine                        |                   |       |

### Properties/Performance Values

- |                    |                     |
|--------------------|---------------------|
| • Bonding strength | 7 N/mm <sup>2</sup> |
|--------------------|---------------------|



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## Product Information

### Additional Information

Technical recommendations:

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
- 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
- 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.

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

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

Bonding strength values were obtained under standard laboratory conditions. (Material: etched aluminum test specimen / bonding conditions: temperature = 180 °C; pressure = 10 bar; time = 7 sec).

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



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## Product Information

### 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.



For latest information on this product please visit <http://l.tesa.com/?ip=58471>