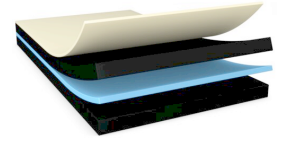




# 58491

## Product Information



112µm double sided black reactive HAF mounting tape

## Product Description

tesa HAF® 58491 is a reactive heat activated film based on phenolic resin and nitrile rubber. This black double sided tape has a PET backing. It is protected by a strong paper liner.

tesa HAF® 58491 is free of halogen and compliant with current RoHS standards.

At room temperature tesa HAF® 58491 is not tacky. It is activated by heat and pressure applied during the assembly process.

### Special Features:

- \* Reliable and ageing-resistant bonds
- \* Extremely high performance, even on small bonding areas and thin design gaps
- \* Extremely low oozing ratio
- \* Very good dimension stability and easy die-cut handling
- \* PET backing provides barrier function in mesh bonding applications
- \* Suitable for long-term applications that are exposed to heavy stress
- \* Bonds remain elastic

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For latest information on this product please visit <http://l.tesa.com/?ip=58491>



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## Product Information

### Application Fields

tesa HAF® 58491 is especially recommended for bonding of metal components to various plastic or metal surfaces, e.g. SUS or AL to PMMA, PC or ABS:

- \* Structural bonding inside electronic devices
- \* Speaker mesh mounting
- \* 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          | PET                             | • Total thickness | 112 µm |
| • Type of adhesive | nitrile rubber / phenolic resin | • Color           | black  |
| • Type of liner    | glassine                        |                   |        |

### Properties/Performance Values

- |                    |                     |
|--------------------|---------------------|
| • Bonding strength | 6 N/mm <sup>2</sup> |
|--------------------|---------------------|

### Additional Information

Technical recommendations:

tesa HAF® 58491 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 metal 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.

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## Product Information

### Additional Information

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 plastic part onto the metal component. 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

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.

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## Product Information

### Additional Information

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.

### 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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