# tesa® HAF 58478



## product information

### 200µm black reactive HAF mounting tape

tesa® HAF 58478 is a reactive heat activated film based on phenolic resin and nitrile rubber. This black double sided tape has no backing. It is protected by a strong paper liner.

tesa® HAF 58478 is free of halogen and compliant with current ROHS standards.

At room temperature tesa® HAF 58478 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
- · Very low oozing ratio
- Suitable for long-term applications that are exposed to heavy stress
- · Bonds remain elastic

### Main Application

tesa® HAF 58478 is especially recommended for bonding of metal components to various plastic or metal surfaces, e.g. SUS or AL to PMMA, PC or ABS:

- \*Constructive bonding inside electronic devices
- \*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.

#### **Technical Data**

<ul> <li>Backing material</li> </ul>	none	<ul> <li>Type of adhesive</li> </ul>	nitrile rubber /
<ul> <li>Color</li> </ul>	black		phenolic resin
<ul> <li>Total thickness</li> </ul>	200 μm	<ul> <li>Type of liner</li> </ul>	glassine
		<ul> <li>Bonding strength</li> </ul>	7 N/mm <sup>2</sup>

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#### **Additional Information**

Technical recommendations:

tesa® HAF 58478 is not self adhesive. It is activated by heat and pressure over a certain interval. The following values are recommendations for machine 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.

#### Machine setting:

- Temperature 90 120 °C
- Pressure<sup>2</sup> 2 6 bar
- Time 1 3 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.

#### Machine setting:

- Temperature<sup>1</sup> 180 220 °C
- Pressure<sup>2</sup> 2 10 bar
- Time 3 10 s

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 =  $180 \, ^{\circ}$ C; 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 at the surface of heating jig.

<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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