

tesa® HAF 8478



Product Information

Heat Activated Film Solutions for the Consumer Electronics Industry

tesa® HAF 8478 is a thermosetting film based on phenolic resin and nitrile rubber. This brown double-sided tape has no backing. It is protected by a strong paper liner.

tesa® HAF 8478 is halogen-free and compliant with current ROHS standards.

At room temperature tesa® HAF 8478 is not tacky. It is activated by heat and pressure during defined intervals.

tesa® HAF 8478 enables extremely strong and age-resistant bonds between different materials, especially on porous substrates.

tesa® HAF 8478 features:

- Excellent conformability for porous and curved substrate surfaces
- Produces low oozing ratio
- Reliable and age-resistant bonds between plastic and metal surfaces, even on very small bonding areas
- Suitable for long-term applications that are exposed to heavy stress
- Bonds remain elastic

Main Application

tesa® HAF 8478 is especially recommended for bonding of metal components to various plastic or metal surfaces, e.g. SUS or AL to PMMA, PC or ABS:

- Bonding of frame to mobile phone housing
- Nameplate bonding for handheld devices

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

• Backing material	none	• Type of adhesive	nitrile rubber / phenolic resin
• Color	amber	• Type of liner	glassine
• Total thickness	200 µm 7.9 mils	• Bonding strength	7 N/mm ²

Additional Information

Technical recommendations:

tesa® HAF 8478 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 of the adhesive tape. Pre-laminated components can be stored over the same period of time as the adhesive tape.

Machine setting:

- Temperature¹ 90 – 120 °C
- Pressure² 2 – 6 bar

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- Time 1,5 – 3,0 s

2. Bonding:

Remove the liner from tape after pre-lamination step. Place the plastic part onto the metal component. Apply sufficient temperature through the metal part while applying pressure for the bonding time to reach sufficient bonding strength.

Machine setting:

- Temperature¹ 180 – 220 °C
- Pressure² 2 – 10 bar
- Time 3,0 – 10,0 s

To achieve optimum performance a cooling step (while applying pressure) directly after the bonding step is recommended.

¹ 'Pre-lamination' and 'Bonding' temperature refer to the data that is measured at the surface of heating mould.

² 'Pre-lamination' and 'Bonding' pressure refer to the force that is transformed from mould surface directly to the bonding area.

Storage conditions according to tesa® HAF shelf life concept.

Note: Bonding strength values (mean values) were obtained under standard laboratory conditions. (Material: AL & AL test specimen / Bonding conditions: Temperature = 180 °C; Pressure = 10 bar; Time = 7 sec).

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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