



tesa HAF[®] 8474

Product Information

Heat Activated Film Solutions for the Consumer Electronics Industry

Product Description

tesa[®] HAF 8474 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 8474 is halogen-free and compliant with current ROHS standards.

At room temperature tesa[®] HAF 8474 is not tacky. It is activated by heat and pressure during defined intervals.

tesa[®] HAF 8474 enables extremely strong and age-resistant bonds between different materials.

tesa[®] HAF 8474 features:

- Excellent conformability for flat and narrow substrate surfaces
- Produces very 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

Application Fields

tesa[®] HAF 8474 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 window frames and front covers of mobile phone housings
- Constructive bonding inside handhelds
- Multi media card applications

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 | 100 µm |
| • Type of adhesive | nitrile rubber /
phenolic resin | • Color | 3.9 mils
amber |
| • Type of liner | glassine | | |

Properties/Performance Values

- | | | | |
|------------------------------------|---------------------|-------------------------------|----------------------|
| • Bonding strength (dynamic shear) | 7 N/mm ² | • Bonding strength (push-out) | 11 N/mm ² |
|------------------------------------|---------------------|-------------------------------|----------------------|

For latest information on this product please visit <http://l.tesa.com/?ip=08474>



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Additional Information

Technical recommendations:

tesa® HAF 8474 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
- 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).



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