

tesa® 8444

Product Information

100μm/3.9 mils transparent HAF mounting tape

Product Description

tesa® Thermoplastic HAF 8444 is a copolyester based thermoplastic bonding film. This transparent double-sided tape has no backing. It is protected by s strong paper liner.

tesa® Thermoplastic HAF 8444 is free of halogen and compliant with current ROHS standards.

At room temperature tesa® Thermoplastic HAF 8444 is not tacky. It is activated by heat while applying slight pressure.

Special Features:

- · Reliable and ageing resistant bonds
- · Very high bonding strength on large bonding areas
- · Low bonding pressure required
- · Bonds remain elastic

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Application Fields

tesa® HAF 8444 is especially recommended for bonding of metal components to various plastic or metal surfaces, e.g. SUS or AL to PC, PMMA or ABS:

- Bonding of decorative metal components
- · Bonding of logo to housing
- · Fabric bonding in accessories

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	copolyester			3.9 mils
•	Type of liner	glassine	•	Color	transparent



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Properties/Performance Values

Bonding strength

5.5 N/mm²

Additional Information

Technical recommendations: tesa® Thermoplastic HAF 8444 is not self adhesive. It is activated by heat while applying slight pressure.

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.

Setting:

- Temperature¹ 90 130 °C (194-266 °F)
- Pressure² 2 5 bar
- Time 2-5 s.
- 2. Bonding: Remove the liner from tape after pre-lamination step. Place the metal part onto the plastic component. Apply sufficient temperature through the metal part while applying pressure for the bonding time to reach sufficient bonding strength.

Setting:

- Temperature¹ 115 140 °C (239-284 °F)
- Pressure² 2 5 bar
- Time 5 15 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: AL & PC test specimen / Bonding conditions: Temperature = $140 \, ^{\circ}\text{C}/284 \, ^{\circ}\text{F}$; Pressure = $5 \, \text{bar}$; Time = $7 \, \text{sec}$).

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

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

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



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