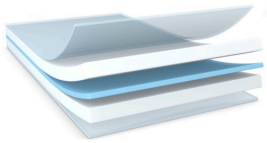
tesa® 8684
UV epoxy



Product Information

100µm white UV-activated structural bonding tape

Product Description

tesa® UV epoxy 8684 is a white UV-activated structural bonding tape. The curing process starts upon exposure to UV light. Before curing tesa® UV epoxy has initial tack for easy pre-lamination. After activation there is an open time in which the substrates can be bonded. Thus, bonding of translucent and opaque substrates is possible. tesa® UV epoxy comes with immediate bonding strength which makes additional fixation after bonding unnecessary.

Main features

- High bonding strength, even on small bonding areas and thin design gaps
- Tacky at room temperature for easy pre-lamination
- Activation by common light curing equipment
- Bonding of translucent or opaque substrates
- Immediate bonding strength after activation
- The PET backing facilitates the die-cutting process

Application Fields

tesa® UV epoxy is especially recommended for bonding of various substrates and components inside electronic devices which are sensitive to processing temperatures:

- Bonding of temperature-sensitive substrates
- Component mounting in electronic 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.

Product Construction

• Backing	PET	• Total thickness	100 µm
• Type of adhesive	UV-curable	• Color	white
• Type of liner	PET		

Product Assortment

• Available colors	white	• Available thicknesses	100µm
• Available liners	PET		

Properties/Performance Values

• Bonding strength (push-out)	2.5 N/mm^2

For latest information on this product please visit http://l.tesa.com/?ip=08684

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Additional Information

tesa® UV epoxy is a reactive adhesive. It is activated by UV light. tesa® UV epoxy can be used for bonding of translucent or opaque substrates.

Bonding of opaque substrates

The open time of tesa® UV epoxy enables the bonding of opaque substrates like plastics and metals. tesa® UV epoxy can be activated by UV light as a die-cut or already pre-laminated onto the first substrate.

Activation of die-cuts: First the die-cut of tesa® UV epoxy is activated by UV light. The covering liner of the die-cut must be light-permeable (e.g., clear PET) to enable the activation of the tape. After activation the die-cut is pre-laminated onto the first substrate. The second substrate is then bonded by applying sufficient pressure (≥3 bar). Pre-lamination and bonding must take place within 5 min after activation.

Activation of pre-laminated parts: First remove the covering liner of tesa® UV epoxy and pre-laminate the tape onto the first substrate. The pre-laminated parts are then exposed to UV light. The second substrate is bonded by applying sufficient pressure (≥3 bar) within 5 min after activation.

Bonding of translucent substrates

Translucent substrates such as clear plastics can be bonded before activation by UV light. At least one substrate must be light-permeable to enable the activation of tesa® UV epoxy. First remove the covering liner of tesa® UV epoxy and pre-laminate the tape onto the first substrate. The second substrate is then bonded by applying sufficient pressure (≥3 bar). The bonded parts are then exposed to UV light to start curing of the adhesive.

Pre-lamination conditions

- Before curing tesa® UV epoxy has initial tack and can be pre-laminated like a common PSA tape
- A pressure of ≥1 bar should be applied to ensure proper wet-out to the surface

Activation and bonding parameters

- Light source: Lamp of 365 nm
- Light dose: 2.5 - 5 J/cm^2 UV-A
- Activation time: ≥ 5 s
- Pressure: ≥ 3 bar
- Bonding time: ≥ 30 s

Bonding strength values were obtained under standard laboratory conditions. (Material: PC test specimen / bonding conditions: UV dose: 4.5 J/cm^2 UV-A; activation time: 10 s; pressure: 5 bar for 30 s). To reach maximum bonding strength surfaces should be clean and dry.

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Disclaimer

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