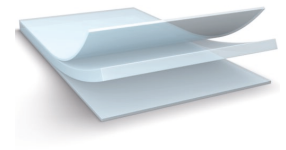


tesa[®] 8481

UV Epoxy Chemical Resistance



Product Information

30 µm UV-activated structural bonding tape

Product Description

tesa[®] UV epoxy 8481 is a UV-activated structural bonding tape with high chemical resistance performance. 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.

Product Features

Main features

- High chemical resistance performance
- Tacky at room temperature for easy pre-lamination
- High bonding strength, even on small bonding areas and thin design gaps
- Activation by common light curing equipment
- Bonding of translucent or opaque substrates
- Immediate bonding strength after activation

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 | none | • Total thickness | 30 µm |
| • Type of adhesive | UV-curable | • Color | translucent |
| • Type of liner | PET | | |

Properties/Performance Values

- Bonding strength (push-out) 3.5 N/mm²

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.

For latest information on this product please visit <http://l.tesa.com/?ip=8481>

tesa[®] 8481

UV Epoxy Chemical Resistance

Product Information

Additional Information

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.

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/cm² UV-A
- Activation time: ≥ 5 s
- Pressure: ≥ 3 bar
- Bonding time: ≥ 10 s
- Activation on both sides required

Bonding strength values were obtained under standard laboratory conditions. (Material: SUS test specimen / bonding conditions: UV dose: 4.5 J/cm² UV-A; activation time: 10 s; pressure: 5 bar for 30 s). To reach maximum bonding strength surfaces should be clean and dry.

tesa[®] 8481

UV Epoxy Chemical Resistance

Product Information

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.



For latest information on this product please visit <http://l.tesa.com/?ip=8481>