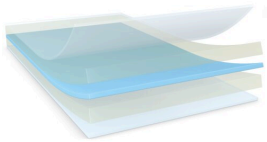
tesa® L-tape 8692

Product Information



50 µm translucent light-activated structural bonding tape

Product Description

tesa® L-tape 8692 is a translucent light-activated structural bonding tape, especially suited for temperature-sensitive substrates. The curing process starts upon exposure to UV or blue light (standard 365 nm or 460 nm lamps). Before curing, tesa® L-tape 8692 has initial tack for easy application like a common PSA tape. After activation, there is an open time in which the substrates can be bonded. Thus, bonding of translucent and opaque substrates is possible. tesa® L-tape 8692 comes with a high immediate bonding strength which makes additional fixation after bonding unnecessary.

Product Features

- High bonding performance, even on small bonding areas and thin design gaps
- Light-activation at room temperature, suited for temperature-sensitive substrates
- Structural bonding performance for stiffening applications
- Good tack and immediate bonding strength
- Bonding of translucent or opaque substrates
- PET backing to facilitate the die-cutting process

Application Fields

tesa® L-tape is especially recommended for bonding various substrates and components within electronic devices that are sensitive to elevated temperatures:

- Component mounting in electronic devices
- Back cover and display module mounting
- Applications with stiffening requirements, small bonding areas or thin design gaps

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 film
- Type of adhesive: UV-curable
- Type of liner: PET
- Post-consumer recycled content of liner: 88 %
- Total thickness: 50 µm
- Color: yellow translucent

Properties/Performance Values

- Bonding strength (push-out): 11.5 N/mm^2

For latest information on this product please visit http://l.tesa.com/?ip=8692

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Additional Information

tesa® L-tape is a reactive adhesive. It is activated by UV or blue light (wavelengths of 365 nm or 460 nm) and can be used for bonding of opaque or translucent substrates.

Bonding of opaque substrates

The open time of tesa® L-tape enables the bonding of opaque substrates like plastics and metals. tesa® L-tape can be activated by UV or blue light before or after bonding to the first substrate.

Activation before bonding: The die-cut of tesa® L-tape is activated by UV or blue 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 bonded onto the first substrate. The second substrate is then bonded within 10 minutes by applying pressure (≥ 3 bar).

Activation after bonding to the first substrate: The die-cut of tesa® L-tape is bonded onto the first substrate. After activation by UV or blue light, the second substrate is bonded within 10 minutes by applying pressure (≥ 3 bar).

Bonding of translucent substrates

Translucent substrates such as clear plastics can be bonded before activation by UV or blue light. At least one substrate must be light-permeable to allow the activation of tesa® L-tape. After applying tesa® L-tape to the first substrate, the second substrate is bonded by applying pressure (≥ 3 bar). The bonded parts are then exposed to UV or blue light to start the curing of the adhesive.

Pre-lamination conditions

- Before curing, tesa® L-tape has initial tack and can be applied 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 460 nm
- Light dose: 30-50 J/cm^2 at 460 nm
- Recommended pressure: ≥ 3 bar
- Recommended bonding time: ≥ 10 s

Bonding strength values were obtained under standard laboratory conditions. (Material: SUS test specimen / bonding conditions: light dose: 40 J/cm^2 at 460 nm; pressure: 5 bar for 30 s). To reach maximum bonding strength surfaces should be clean and dry.

tesa® L-tape can also be activated by UV Light with wavelength of 365nm:

- Light source: lamp of 365 nm
- Light dose: 15-30 J/cm^2 at 365 nm
- Recommended pressure: ≥ 3 bar
- Recommended bonding time: ≥ 10 s

It is important that when activationg L-tape through 365 nm, heat is controlled, otherwise this could lead to curing of the film before the bonding of the second substrate due to elevated temperatures.

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This can result in:

- Loss of tack
- Poor bonding
- In more extreme cases, surface damage

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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