

Instructions for use of double-sided pressure-sensitive adhesive tape

Application temperature

The most favorable temperature for using pressure-sensitive adhesive tapes is in the range +18 °C to +35 °C. If the storage temperature deviates strongly, we recommend reconditioning before processing. If bonding is carried out at low temperatures, the initial strength of the bond will be reduced.

Surfaces

The surfaces of the materials to be bonded must be dry and clean. Ensure all materials are at the same temperature prior to bonding (see above). Condensation of moisture on surfaces to be bonded (e.g. when carrying cold objects into a warmer room) must be avoided. The materials to be bonded must be free from dust, grease, oil and separating agents and cleaned if necessary. Loose paint or protective coatings must be removed or stabilized.

Surface finish

Good bonds are achieved on smooth surfaces: rough surfaces may require thicker adhesive tape. The following are examples of problem-free bonding materials: metals and high-energy plastics (e.g. ABS, polycarbonate, rigid PVC). Plastics containing plasticisers require special attention. The plasticiser can cause changes in the adhesive layer with the result that the strength of the bond is impaired. Double-sided pressure-sensitive adhesive tapes are available for most applications, but, in the case of problematic surfaces (such as polyethylene, polypropylene, plastics containing lubricants, powder coatings and rubber), appropriate testing should be carried out beforehand. Pre-treatment may be needed for some low-energy surfaces.

Cleaning

For cleaning the surfaces only use a clean cloth and a solvent that is compatible with the materials, e.g. benzines, alcohol, esters or ketones.

High contact pressure promotes all-over contact

Contact pressure (approx. 10–15 N/cm²) is applied manually with a roller or surface press. Hard-type (“dry”) adhesive tape requires greater contact pressure than soft tape. Full adhesive strength is only reached in the case of hard adhesives after at least 24 hours at normal temperatures.

Avoid any unnecessary loads

Bonds must be made in such a way that no lever action (cleavage stress) can arise. Any shearing or tensile stress must be able to spread across the entire adhesive surface. Continuous peeling stresses impair the permanent elasticity of the bond (e.g. plates to be applied to curved surfaces must first be suitably preformed). Avoid stresses at the ends of the materials to be bonded.

Storage

Pressure-sensitive adhesive tape should be stored at room temperature (15–25 °C) and normal humidity and should be protected against direct sunlight and moisture. For information regarding storage stability of the different adhesive classes please have a look at the back of the paper.

**Details regarding product-specific storage stability
can be found in the corresponding data sheets.**

In addition to the limitation in shelf life due to the type of adhesive, we generally recommend that die-cut parts be processed within one year of delivery. The duration indicated above requires storage in original packaging at 15–25°C, normal humidity (50–70 %) and absence of UV-radiation. Already existing product-specific specifications for storage shall prevail. All application-related statements, information and recommendations here are given to the best of our knowledge and practical experience. The buyer is responsible for determining the suitability of the specific tape for its intended use in connection application-related method of application. Please consult our Application Technology Service for specific questions.

The perfect bonding solution?
The one tailored to your application.
We support you **from the idea** to its
integration **into your process**.



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