

Instructions on processing

Self-adhesive materials

General information

When applying self-adhesive materials it is absolutely essential to comply with the instructions on processing. Only in this manner is it possible to ensure a secure, permanent bonding and achieve optimal adhesion to the substrate.

Processing

Temperature

As far as possible, the surface and the self-adhesive material should be at the same temperature between 18 °C and 25 °C. Under no circumstances carry out bonding at temperatures under 15 °C. Avoid any risk of condensation before the bonding process – for example, when the parts to be bonded are transported from cold storage areas into warm production areas.

Preparing the substrate

As a matter of principle, for the processing of all self-adhesive materials it is important that the supporting surface is free of fats, oils, solvents or other separating agents. In addition, ensure that the surface is completely dry and dust-free. The materials to be bonded must exhibit a sufficient strength in themselves. Remove or strengthen any loose coatings or top layers.

For cleaning, we recommend the use of pure, oil-free and grease-free benzine and lint-free cotton swabs. After cleaning, the supporting material should be rubbed dry and allowed to flash off for at least 30 minutes to ensure that no cleaner residues remain on the surface. It is possible to use other cleaners, provided that the same cleaning effect is achieved and it is ensured that no cleaner residues remain on the surface and that the material to be bonded is not attacked.

Before cleaning lacquered or plastic surfaces, it is essential to first check them for compatibility with the cleaning agent.

Different substrates

- **Bonding to untreated metal surfaces, e.g. galvanised sheet steel**
Apart from the aforementioned cleaning, no other measures are normally required. The important point is that the galvanising is abrasion-resistant and bonds properly.
- **Bonding to coated metal surfaces**
The coating must be completely hardened and flashed off before bonding – in this regard, comply with the drying times specified by the coating manufacturer. This also applies to additional and repair coating.
Powder coating, in particular, sometimes leads to subsequent migration of processing agents, e.g. washing, which acts as a release agent and may destroy the bonding after a certain time. If in doubt, contact the coating manufacturer or conduct tests for permanent bonding.
- **Bonding to plastics**
Due to the large number of marketable plastics available, no general statement can be made in this regard. Before bonding, we therefore recommend that appropriate application tests be undertaken. The key aspect in this context is that the plastics contain no components, such as plasticisers, separating and processing auxiliaries, which may migrate into the self-adhesive layer and destroy it.

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Mechanical attachment

An additional mechanical attachment is always advisable, if particular circumstances, such as a high dead weight, the quality of the substrate, expansions, mechanical, thermal or other exceptional stresses arise that overtax the normal bonding.

Special safety considerations may also require an additional mechanical securing.

Contact pressure / Performing the bonding

The adhesives are pressure-sensitive adhesives. Application of sufficient pressure is necessary for bonding to occur. A brief, high pressure (e.g. with a squeegee, pressure roll or pressure unit) will provide for a good surface contact.

Rule-of-thumb: pressure ca. 10 - 15 N/cm²

After peeling off the masking paper or masking film, immediately apply with pressure the self-adhesive material over the full surface without tension or stretching – see above. Avoid air cushions, areas of low bonding as well as contamination of the bonding layer.

No correction is normally possible after the first bonding, since the initial bonding strength is extremely high.

The bonding achieved in this process can only be subjected to mechanical or thermal stress after a period from 24 to 72 hours has elapsed (depending on the type of adhesive), since the bonding strength will increase in this period.

Storability

The storability of the self-adhesive materials is 6 months from delivery, provided that the storage ensues in dry sealed room at temperatures between +18 °C and +25 °C. The bonding layer may not be directly exposed to sunlight.

The technical data (mean values) as well as details on the materials are based on our current state of knowledge and experience. Because of the wealth of possible influences in the application of our products, however, they do not absolve the processor from performing his own tests and experiments before actual use. Due to the particularities of each individual case, we can assume no liability for our directions. We would be delighted to provide information on request.