



Installation of security films

1. Requirements for the application of the film

The most important precondition for a successful installation of our security films is a clean and dust-free workplace, because this is very important for the quality of the installation.

Before starting, all curtains should be drawn back and office furniture, which shouldn't get wet, must be moved out of the way. There should be enough space to work with the film. Heating should be turned off in order to prevent air motions and dust in the room. Plants, which couldn't be moved out of the way, should be wetted in order to prevent the development of dust.

2. Working with security film

The films we offer have a width of 1.50 or 1.83 meters. The length of the roll is 30 meters / 20 meters / 10 meters. The rolls are packed in the appropriate boxes. The film itself is rolled up, the end of the film sticks to the cardboard core. After usage, the rest of the film should always be rolled up properly, because too loosely rolled up film could get delaminated.

In principle, the film should be stored in the original packing and with the appropriate end cap. Additionally it should be ensured that the packed films will be piled up upright.

Dropping of the film should destroy the lamination of the film and cause a delamination. It must be ensured that the film should not be dropped or thrown during loading.

3. Cutting the film to size

While cutting the film it should be noted that the film will be cut precisely and cut to measure in order to prevent inaccuracies, especially in the area of the window frame.

The film should be cut 2mm smaller than the glazing of the window, so that the film could be positioned exactly on the window pane within the window frame.

4. Preparation of the window surface

It is very important to clean the window thoroughly, because it influences the result of the installation more than people thought as it is the precondition for a high-quality installation. Recently plastered stonework has to be completely dry and dust-free before the installation.

The window pane should be examined for cracks, dents and bumps. These defects should be discussed with the customer, because the film could not be installed perfectly on defective window panes.

The pane is cleaned first before assembly. First pour a glass cleaner into a spray bottle. Afterwards spray the entire glass surface and clean it with a glass scraper. This work must be carried out very carefully so that all dirt particles, paint residues etc., even those that are not visible, are removed.

The dirty water is drawn off with a rubber window wiper in one go, without settling. Then spray the window again with the glass cleaner and clean thoroughly with the mop. Then pull off again.

The edges must be carefully dried with a lint-free, absorbent paper towel, taking care to remove all dust, dirt and dissolved putty/silicone particles.

Note: For old windows with dry or loose edges, we recommend sealing or replacing the putty bed. If this is not possible, use as little water as possible in the upper edge area of the pane and spray the film even more. Otherwise the dried out edge would partially release the water during the installation of the film. Dirt particles and water can then run under the film and lead to detachment or blistering at the edges. You can also temporarily cover the putty bed with a waterproof adhesive strip.

5. Installation of the film

The assembly should be carried out by 2 persons. After the glass surface is prepared, the direct window surroundings should be sprayed with water to bind floating dust particles.

The window surface should be moistened with a spray of water and special installation fluid (mixing ratio 1:60).

In case the window pane is very warm or the sun shines on the window, this should be repeated several times in order to keep the liquid on the pane. You should work fast so that the water could not vaporize and the film could be positioned and installed properly on the pane.

One person holds the film while the other one removes the release liner. Please do not touch the dry adhesive! Wet your fingers with the installation liquid. While removing the release liner spray the adhesive generously with the installation liquid.

This prevents the film from attracting dust or dirt by static electricity. It also facilitates the fixation of the film on the window.

If the release liner is completely removed, the film can be fixed on the window with the adhesive side. Please note that film has to be positioned exactly with a distance of 2mm to the window frame. The film must not come into contact with the window frame, as this could cause the film to peel off later.

If the film is positioned correctly, it will be sprayed with the installation liquid once again. The rubber squeegee will be used in order to fix the film on the pane. The film will be squeezed by even, slim/short pushes.

The first push starts at the top of the window. Make sure that the film is still positioned correctly on the window pane, if not correct it. Then squeeze the squeegee from the middle to the sides. The liquid should be squeezed out to the left and to the right.

Please check once again if the film is positioned correctly.

Repeat the above-mentioned process once again.

The pressure of the rubber squeegee should be enough to fix the film firmly on the pane. For large windows it could be necessary that someone presses a piece of plywood on the opposite side, so that the pressure is distributed evenly on the window pane and a breakage of the window is prevented.

Important: It is important that the pressure of the squeegee should be evenly and trained. Parallel fixation with the other hand should only be carried out in the edge area, as this can otherwise have a negative effect on the adhesive.

If there is too much liquid left under the film, it is possible that the liquid will accumulate under the film after a short time. The pressure of the squeegee should not be so big that the adhesive will be relocated. Too much pressure can result in whitish mist or shimmer which becomes visible.

Finally the edges will be squeezed. Then wrap an edge scale with a lint-free paper towel and dry all edges evenly.

After this process has been finished, the removable and re-installable rubber seal respectively the glazing bars should now be inserted again or the security film should be sealed with a special silicone in the edge area.

Sealing: we recommend you to install the film under the glazing bars so that the film can be protected against removal in the edge area. If there are no glazing bars or removable and re-installable rubber seals, we recommend sealing with special silicone. It is important to use closed cell special silicone.

6. Positioning of a butt weld

If the maximum dimension of 1500mm or 1830mm is exceeded simultaneously in height and width, a butt weld is required. Please use the machine edges of the film here. As a rule, the butt seam is set vertically. It should be at least 1-2mm wide. A horizontal seam leads after a certain time to a dirty edge due to cleaning.

Recommendation:

As the installation of security film is complex, we recommend to carry out an installation training at our premises. We will be happy to send you the relevant information.

More external conditions:

- Processing in a dust-free environment
- Wear lint-free clothing
- Clean Clothes
- As few people as possible in the work area
- Flat glass films should ideally be stored dry in their original packaging (on a core incl. the end stops). Never lay flat on a shelf, otherwise the film would delaminate.