

### Installation and care instructions for HelioShield external sun protection films

#### 1. General information

ORAFOL® HelioShield external sun protection films provide excellent sun protection, help keep buildings cooler, are fully compatible with the vast majority of glass types and have a highly scratch-resistant surface coating.

#### Requirements for successful installation

- Ambient temperature: **10°C-30°C**
- Dry weather conditions with little wind
- Clean, grease-free glass surface with no damage
- Depending on the dimensions of the glass surface to be coated, to help the installation run smoothly, it is recommended that it be done by two people

#### 2. Installation instructions

##### 2.1 Tools required

- Spray bottle containing **installation solution** (5-10 drops of baby shampoo to 1 litre of water)
- Sturdy squeegee with handle (approx. 12-15 cm wide, squeegee for safety film)
- Sharp cutter knife with spare blades (45°)
- Glass scraper
- Ruler or cutting guide
- Glass cleaner and lint-free cloths
- Silicone sealant for outdoor applications (neutral cross-linking, UV-resistant) or alternatively ORAFOL edge sealing tape
- Two small pieces of adhesive tape to remove the release liner on each glass surface

##### 2.2 Preparing the glass surface

- **Clean the glass:** Firstly, clean the window frame using suitable tools (microfibre cloths or similar). Use a solution of water and pH-neutral cleaning agent (e.g. baby shampoo, but do not use detergent with skin-caring substances under any circumstances) along with professional tools for window cleaning (lambskin and squeegee). Remove dirt, dust and grease residues carefully.

- Then spray the outside of the window pane with a conventional glass cleaner. Finally, remove the smallest dirt particles, stuck pollen and insect residues systematically using a glass scraper and lint-free industrial paper towels by wet cleaning.
- **Check the surface:** Completely remove any damage, sealing residue or silicone residues.
- Then spray the glass surface with the water solution again and remove without leaving any traces of water. Spray again immediately before applying the film.

### 2.3 Step-by-step installation

1. **Prepare the film:** Roughly cut, making the film about 2 cm larger than the glass all around (rough cut); alternatively, cut precisely to size (glass dimensions minus 4–5 mm in height and width = fine cut).
2. **Clean the glass thoroughly** (as described in point 2.1 above) and dry with a squeegee.
3. **Moisten the glass surface:** spray the glass surface with the installation solution again
4. **Remove the release liner:** Stick a piece of tape on one corner, both on the front and back sides, then slowly peel off the liner.
5. **Moisten the adhesive side:** Spray the exposed adhesive side generously with the installation solution while removing the release liner.
6. **Apply the film:** With the adhesive side down, place the film on the glass and position it carefully. Provided there is sufficient installation solution between the film and the glass, it can be aligned and repositioned easily.
7. Spray the **film surface** with the installation solution.
8. **Remove water and air bubbles:** Use the squeegee to thoroughly push the fluid out from under the film, working horizontally from the centre outward – starting at the top and finishing at the bottom. Do not squeegee the fluid all the way to the rubber/silicone seal – keep a slight distance at first.
9. **Trim off any excess:** Cut along the frame (if not yet cut to glass size). It is best to maintain sufficient distance from the window seal (approx. 2-3 mm) using a cutting guide or edge ruler.
10. **Final cleaning and squeegeeing:** Spray the film surface around the edges again with the installation solution, then squeegee the remaining water out of the edge area. Wait a little, then soak up any water residue and wipe away very carefully using a lint-free cloth.
11. **Edge sealing:** When the film is completely dry around the edges or after 24 hours' drying time, seal the film edges with silicone (seam thickness approx. 3-6 mm, depending on the seal) or the edge sealing tape. Never apply the edge sealing tape to the seal.

Please note:

- Coating partial areas on glass is not permitted.
- Glass panes with a thickness of more than 10 mm are not approved for coating with the films.
- Combining two or more non-matching films on one glass surface is also not permitted.
- The films must be applied without any overlaps. For seam formations, vertically aligned butt joints with a gap of approximately 0.5-1 mm are recommended. The adjoining film strip must be rotated 180° to ensure a particularly uniform appearance when viewed from the inside out.

### 3. Care and cleaning

- Carry out the **initial cleaning after 30 days at the earliest**.
- Use **mild, non-abrasive, alcohol-free cleaning agents** only.
- Do not use **sharp objects or high-pressure cleaners**.
- **Clean twice a year** at a minimum, especially in polluted areas.

### 4. Removing the film

- Ambient temperature **between 15°C and 30°C**.
- Firstly remove the edge sealing tape; in the case of silicone seals, cut them off along the rubber seal on the glass.
- **Cut the film into 10-20 cm wide vertical strips** and remove evenly (together with the silicone if necessary).
- Remove **any adhesive residue** using isopropanol or glass cleaner and glass scraper.
- Optimum angle to the glass surface for peeling the film off: 45°-180°.

These instructions are intended to support professional and effective film installation.

If you have any further questions regarding the application and removal of ORAFOL films, please contact our customer support.

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