Preliminary remarks

The Window Graphics Films are suited for flat as well as slightly curved glass surfaces such as car window panes. It is recommended to always apply the Window Graphics Film together with ORAGUARD[®] protective films in a laminated form recommended by ORAFOL.

If you intend to apply a Window Graphics Film onto a car window, we refer to our Practical Information sheet for selfadhesive films for application on cars (www.orafol.com).

ORAFOL recommend to only use material with the same batch number for one graphic application. If different batch numbers are used it is advised that the technician conduct a test to discover any potential differences in using the films and in the quality of the graphic application.

Preparation

To ensure a high quality of application, the film should be applied at a temperature of at least +10° C in a dry and closed room. The glass substrate should be left in the room for several hours prior to application and after application, in order to allow the receiving surface to adjust to the conditions and to achieve the best possible adhesion result.

Glass surfaces to which the self-adhesive film will be applied must be thoroughly cleaned from grease or dust particles using industrial detergents or isopropanol. The solvents used should be mild and chemically pure in order not to damage rubber seals etc. Considering its highly varying quality, the use of spirit is not recommended.

We strongly recommend carrying out a test after cleaning and before application to check the final adhesion after 24 hours.

If the adhesion is unusually weak (e.g. when the vehicle or parts of it were pre-treated with substances using nanosealing/nanocoating or nanotechnology) cleaning with Acetone may help. Ensure that neither window rubber seals nor painted surfaces or plastic parts get into contact with the Acetone, as it may damage these parts.

Auxiliary material

- felt squeegee
- cutzit or a similar type of cutter
- scissors
- ruler or measuring tape
- lint-free cloths
- hot gun

Drying

<u>Freshly printed films</u> should be spread out and left to dry for 72 hours before lamination. Please see our Practical Information sheet for digital printing materials (www.orafol.com).

Application

Remove the protective liner gently from the film, not vice versa. Avoid tucks and creases on the self-adhesive film when removing the paper.

When forming a laminate from Window Graphics Film and ORAGUARD[®] laminate, the protective film should always rise at least 10 mm above the edges of the self-adhesive film. In case this is not possible we recommend to apply a 10 to 15 mm wide strip of ORAGUARD[®] Film with overlapping edges to the ORAJET[®]/ORAGUARD[®] laminate and the receiving surface. This will not only improve the adhesion of the edges to the surface but also effectively prevent any penetration of humidity and dust.



When using several pieces of adhesive film, avoid overlapping. The pieces should be applied next to each other, leaving a gap of not more than 1 to 2 mm. A 10 to 15 mm wide strip of ORAGUARD[®] should be used to seal this gap.

Attention: Variations in temperature may cause thermal stress for insulation glass which was partly or completely laminated or furnished.

Lamination of car glass:

ORAFOL recommends laminating Window Graphics films only onto car glasses which are not necessary for the sight of the driver. A rear window lamination requires a second wing mirror.

Many car windows are not framed but laminated onto a frame. In these cases we recommend to laminate the film only 10-15 mm up to the splice to guarantee the removal of the car glass despite the film in case of an emergency (e.g. a traffic accident). In the case of pane frames, a lamination of the frame and the pane rubber, respectively and a jamming of the film with the pane frame must be avoided.

Application to the window frame may cause the self-adhesive film to become detached. Leave a distance of at least 10 to 15 mm.

It is the responsibility of the user to check and comply with the national regulations for lamination of car.

Removability

Please see the Practical Information sheet for Plotter Films.

This information is based on our knowledge and experience. We have not outlined all considering aspects of application. Specialised and occupational knowledge and competences of a professional sign maker are presupposed. Due to the diversity of potential influencing factors during application and use, we recommend to make own tests of our products by customers who wish to use the films for special applications. No legally binding warranty of certain qualities can be derived from this information.

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