

Preliminary remarks

ORAFOL offers a wide range of self-adhesive digital printing media for many different applications, together with optimally matched laminating films. To ensure that the films perform as specified, the following preparation and application instructions must be observed during installation.

If application is to be carried out on a vehicle, please observe the information provided in the Application Guidelines for Vehicle Film Installation also.

ORAFOL recommends using only material from the same batch for a graphics application. In this context, ORAFOL guarantees that there are no splices within a film roll and, consequently, no change of batch. If material from different batches is nevertheless to be used, the installer should check whether any batch-related differences may affect the processing of the films and the final result.

Storage and processing conditions

The self-adhesive products supplied by ORAFOL in roll form must always be stored either suspended (with side holders) or standing upright on the roll supports supplied, but never lying flat (without side holders). For storage and processing, a cool, dry indoor environment protected from sunlight, with a relative humidity of 40% to 50% at +18°C to +22°C, must be maintained. Storage near heating systems or in direct sunlight must always be avoided. The information on shelf life provided in the respective data sheets must be observed.

Printing instructions

Digital printing media should always be handled with great care and using cotton gloves in order to prevent surface damage and contamination. Before printing or producing a proof print, the surface must be checked for condition. In addition, the print file and profiling must also be checked. Due to their specific properties, such as the quality of the PVC film (monomer/polymer PVC film) or the thickness of the adhesive composite, all ORACAL®/ORAJET® digital printing media require different settings for the printer and control software (RIP). Ink application and colour-specific definitions must be taken into account. Furthermore, the information relating to digital printing materials and inks must be observed and compared regarding the intended area of application (indoor/outdoor) and durability.

Drying

Freshly printed media must be laid out to dry after the printing process to allow the solvents in the inks to evaporate. If graphics are plotted in the printed area using a cutting plotter before the drying process is complete, shrinkage of the cut graphics is to be expected. If lamination is carried out too early, any residual solvents in the inks may be unable to evaporate – depending on the ink used – and may impair the functionality of the film (adhesive strength, durability). Printed films that have not been sufficiently dried will contract again during the drying process after printing. If the drying process takes place after the films have been applied to the substrate, this may result in shrinkage and detachment of the film at the edges, from channels, recesses and over rivets. Based on the information above, we recommend observing a drying time of at least 72 hours with the film laid out (lying flat or hanging).

Lamination

To ensure longer durability with optimum quality (gloss, colour depth, protection against mechanical damage), it is advisable to laminate inkjet prints.

ORAGUARD® laminates enhance the colour effect, provide the desired surface appearance (glossy, matt, semi-gloss) and offer excellent protection against the damaging UV rays of the sun as well as against moisture and abrasion. Dirt can easily be removed using conventional cleaning agents. When laminating, we recommend using only films from the same manufacturer and of the same type (e.g. monomer PVC films on monomer PVC films and polymer PVC films on polymer PVC films), as their raw materials are precisely matched to one another. Lamination must be carried out without tension in order to prevent deformation of the film composite. For the same reason, it is also recommended that roller temperatures are not set higher than 30°C. Furthermore, please refer to our recommendation lists for the complementary use of printing materials in inkjet and thermal transfer printing, and to the laminating films intended for use as surface protection. Please observe the product information for ORAGUARD® protective films at www.orafol.de.

Application

The application process is described in the Application Guidelines for Plotter Films. For application to vehicles, the Application Guidelines for Vehicle Film Installation also apply. When applying films to vehicle windows, the information in the Application Guidelines for Vehicle Film Installation as well as the respective type approval for the film(s) used must be observed.

Note on the visibility of the air-channel structure in films with RA+ structure

The ORACAL RA+ structure in the liner and adhesive of car-wrapping films was developed to significantly improve the repositionability of the films and thereby achieve easier and faster application results.

This structure differs from the ORACAL RA structure due to the rougher texture of the liner and therefore also of the adhesive surface. Accordingly, the structure is more visible after application and is therefore one of the fundamental product characteristics. The visibility of the structure does not constitute a product defect, but is due to the improved usability of the RA+ structure. Depending on the customer's or user's requirements, either the RA variant or the RA+ variant may be suitable. The customer or user must make this assessment themselves before starting the project.

For transparent films, it should be noted that films with an air-channel structure may appear cloudy immediately after application; this cloudiness will diminish over time and under the influence of heat.

Removability

Please observe the relevant information in the application guidelines for plotter films.

Notes

ORAFOL provides information on recommended printers and available ICC profiles.

These application guidelines are based on our knowledge and experience. They do not cover all aspects that must be taken into account during application. The specialist knowledge and skills of a signmaker or installer are assumed. Due to the wide range of possible influences during processing, application and use, we recommend testing our products in your own trials for specific applications. No warranty regarding the presence of specific characteristics can be inferred from the information provided.

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