Introduction

ORAFOL® films, ORAJET® Digital Printing Films for application to interior latex painted walls (hereinafter also referred to as "ORAFOL® film") are self-adhesive film products manufactured by ORAFOL Europe GmbH & ORAFOL Americas, Inc. (hereinafter also referred to as "ORAFOL") for general floor graphic applications.

The information in this document is designed to provide a general understanding of floor graphic applications. ORAFOL will warrant its material to be free of manufacturing defects.

For the best possible outcome and for expert assistance ahead of any floor graphic project, contact our experienced Product Technical Support Team, Toll Free, 888-672-2251 x 168, 176, or 150

Application and removal of ORAFOL® films should be carried out exclusively by qualified graphic application specialists (i.e. trained and experienced ORAFOL Certified Installers.)

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Recommended Products

| ORAJET® Digital Print Media | ORAGUARD® Anti-Skid Over-Laminate |
|-----------------------------|-------------------------------------|
| Removable Adhesive | |
| ORAJET® 3621 | |
| ORAJET® 1663 | ORAGUARD® 250AS /// ORAGUARD® 255AS |
| ORAJET® 3169RA | |
| Permanent Adhesive | |
| ORAJET® 3641 | |
| ORAJET® 3165 / 3165RA | ORAGUARD® 250AS /// ORAGUARD® 255AS |
| ORAJET® 3651 / 3651RA | |
| High-Tack Adhesive | |
| ORAJET® 3105HT | ORAGUARD® 250AS /// ORAGUARD® 255AS |





Adhesive Definitions

Definition of Removable, Permanent, & High-Tack Adhesive Performance

Removable Adhesive:

- Should remove cleanly within 2-3 years from smooth, sealed surfaces
- o After 2-3 years, becomes more permanent with reduction in removal properties

Permanent Adhesive:

- o Stronger anchoring power than removable adhesive when applied to smooth, sealed surfaces
- No guarantee as to how cleanly the graphic will removed. Some adhesive residue may remain on the substrate after initial graphic removal

High-Tack Permanent Adhesive:

- o High initial tack to hard-to-stick surfaces like concrete, asphalt, & commercial carpet
- Anchors extremely well to these mentioned hard-to-stick surfaces

Printing & Laminating

There are three critical steps that need to be followed when producing your floor graphics.

- Use the correct color profiles. Check for the latest updates at: https://www.orafol.com/en/americas/support /// ICC Profiles
 - The profile will automatically synchronize the ink levels, heater settings, and feed speed necessary to help ensure quality printing.
- 2. When utilizing solvent or eco-solvent inks: Prior to trimming or laminating, it is important that the graphic sit for a minimum of 24 hours, to allow the ink to thoroughly out-gas. Prints heavy in ink saturation need to cure and out-gas for approximately 72 hours.
 - a. Keep in mind that due to widely varying production shop environments, curing times may vary.
- 3. For best results contour-cut floor graphics, leave a ½" -1" unprinted, white border all the way around the printed area to minimize potential edge curling that typically occurs when contour cutting through a printed bleed. This also provides a nice contrast between the floor graphic and the floor surface.

Substrate Preparation

- Removable adhesive floor graphics may be applied to a clean, smooth, sealed surface.
 - Examples:
 - Poured, Sealed Concrete
 - Commercial Floor Tiles
 - Laminate Flooring



- Vinyl Flooring
- Smooth Ceramic Floor Tiles
- Most Cured, Sealed Wood Flooring
- Permanent adhesive floor graphics may be applied to clean, smooth, sealed surfaces.
 - Examples:
 - Poured, Sealed Concrete
 - Commercial Floor Tiles
 - Smooth Ceramic Floor Tiles
- High-tack adhesive floor graphics may be applied to rougher, hard-to-stick surfaces.
 - Examples:
 - Commercial grade carpet
 - Concrete Sidewalks
 - Asphalt
- Surfaces should be free of dirt and debris and other caked on residue
 - General Cleaning (Sealed Flooring Surfaces):
 - Removing floor wax coating: Spray the surface with a degreasing agent and let stand for 30 seconds.
 - Wipe the surface clean.
 - With a clean lint free rag, wipe the surface down with a mild-detergent and water mixture
 - With a clean lint free rag, wipe the surface down with 90% Isopropyl Alcohol
 - o General Cleaning (Commercial Grade Carpet):
 - Vacuum the general area where the floor graphic will be applied
 - General Cleaning (Exterior Concrete or Asphalt):
 - For best results, two days prior to application, pressure wash the general area to remove environmental contaminants from the textured concrete or asphalt surface.
 - Apply graphics to a clean totally dry concrete or asphalt surface
 - For general cleaning, sweep the surface clean from loose dirt, debris, & other environmental contaminants
 - With a clean lint free rag, wipe the surface down with 90% Isopropyl Alcohol to assist in evaporating any moisture that's present in the application area.

Graphic Application

• When installing your graphic, always apply the material using a dry application method; under no circumstances should a wet application be used.



- Lay the graphic, image-side down, on a flat surface and pull back the liner about half-way. Sharply crease the release liner while holding it away from the adhesive. Align the graphic on the floor and use finger pressure to tack in place.
- Using a Squeegee, work from the center to the edge, then return to the center and work to the opposite edge. Use overlapping strokes while applying a small portion of the graphic at a time.
- Remove the remainder of the release liner, and repeat the above steps until the graphic is completely applied to the flooring surface.
- With firm squeegee pressure, push out any air-bubbles that may remain between the graphic and the flooring surface. If using a non-air-egress film, you may need to puncture a whole with an air-egress tool (Pin Prick) at the edge or center of the air-bubble to work the air out, and press the graphic down with finger or squeegee pressure.

Special Considerations & Durability Expectations

Design

For best overall and longer-lasting results, floor graphics should be produced utilizing simple shapes.

- Circle
- Oval
- Square (with rounded corners)
- Rectangle (with rounded corners)
- Triangle (with rounded corners)

Refrain from producing floor graphics that are ornate or delicate in design with numerous exposed edges or individual characters, as these are more vulnerable and tend to prematurely lift and peel.

"Caution, Slippery When Wet" Signage

If graphics are wet, it's critical that "Caution, Slippery When Wet" Caution Signs are placed around the walking area.

Durability Expectations

ORAGUARD® over-laminate materials containing an Anti-Skid (AS) designation for floor graphic applications:

- ORAGUARD 250AS has a < 6 month Anti-Skid rating for moderate foot traffic
 - Meets the standards of ASTM D 2047 and BAM StVo §35 d3
 - Skid Distance Dry: <35"Skid Distance Wet: <55"
- ORAGUARD 255AS has a < 1 year Anti-Skid rating for heavy foot traffic
 - Meets the standards of ASTM D 2047 and BAM StVo §35 d3



- Skid Distance Dry: <35"
 Skid Distance Wet: <55"
- ORAGUARD 250AS & 255AS are rated at:
 - Indoors 5 years (No foot traffic)
 - Outdoors 2 years (No foot traffic)

Depending on the amount of routine foot traffic these over-laminate films receive, it's important to know that the anti-skid coating will wear away to a smooth finish over time. When this occurs, it's time to consider removing and replacing with a fresh new replacement floor graphic.

If the graphics are applied in areas where the foot traffic is relatively low in volume, it's realistic for the anti-skid coating to last longer than the stated expected durability outlined in the product's technical data sheet.

There are no durability expectations for the mentioned ORAFOL Graphic Marking Films labeled ORAJET® and ORAGUARD® in this document when exposed to any amount of automobile tire traffic or mechanical floor scrubbers.

General Care & Maintenance of Floor Graphics

- With a clean lint free rag or mop, wipe the surface down with a mild-detergent and water mixture.
 - In pedestrian areas, place a "Caution When Wet" sign on the or near the graphic until the graphic and surrounding floor surface has had ample time to dry.
- For caked on debris with a clean lint free rag, wipe the surface down with 90% Isopropyl Alcohol
- Refrain from cleaning the graphics with a mechanical floor scrubber, as this can cause damage to the graphic edges, and prematurely wear away the anti-skid texture of the film.
- Routinely inspect the graphics to ensure edge-lifting isn't occurring. If edge-lifting occurs, this does not constitute a product failure. Trim away and dispose of the lifting edge of the floor graphic.

For questions not covered in this bulletin, please contact an ORAFOL Product Support Representative via email or phone: techsupport-americas@orafol.com | Toll Free, 888-672-2251 x 168, 176, or 150

Note

Surfaces to which the material will be applied must be thoroughly cleaned from dust, grease or any contamination which could affect the adhesion of the material. Freshly lacquered or painted surfaces should be completely cured. The compatibility of selected lacquers and paints should be tested by the user, prior to application of the material. Films with structured surface are naturally more sensitive than the unstructured. Accordingly, these films are to be treated carefully both in processing and in cleaning. Impurities affect the appearance of structured films and require more frequent cleaning. Furthermore the application information published by ORAFOL is to be considered. The batch traceability according to ISO 9001 is possible on the basis of the roll number.

IMPORTANT NOTICE

All ORAJET® products are subject to careful quality control throughout the manufacturing process and are warranted to be of merchantable quality and free from manufacturing defects. Published information concerning ORAJET® products is based upon research which the Company believes to be reliable although such information does not constitute a warranty. Because of the variety of uses of ORAJET® products and the continuing development of new applications, the purchaser should carefully consider the suitability and performance of the product for each intended use, and the purchaser shall assume all risks regarding such use.



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Practical Information Processing & Handling ORAFOL® Floor Graphic Applications

All specifications are subject to change without prior notice.

WARNING: This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

