SIGNMAX® PERFORATED WINDOW FILMS: INSTALLATION GUIDE

Made For Flat Retail Applications Only

Perforated films require special attention and consideration when installing to prevent lifting and curling of edges. These instructions have been prepared to assist in creating a high quality and durable film application.

Cleaning of Windows

- Windows should be cleaned with soap and water if dirty. Do not use solvent based cleaners i.e. Windex.
- After washing, windows must be cleaned with isopropyl alcohol.
- Isopropyl should be dried off with a lint free cloth (not just allowed to evaporate).
- Clean window gaskets to prevent accidental contamination of edges of graphics.

Application Temperature

The temperature during the install, as well as the surface to be adhered to must be a minimum of 10ºC for a period of 24 hours after installation while the adhesive cures. If applying in colder weather, wait until the late afternoon when the glass will be warmer. Graphics should not be installed if the temperature and surface are too hot. If the glass is too warm, it can cause the film to stretch. If applying in hot weather, install in the early morning.

Installation

1. Measure the window graphic and trim excess film if needed. Do not trim too close; final trimming is done after the graphic is in place.
2. Peel and fold back the top edge of the liner 3 to 6 inches (8 cm to 16 cm) depending on the size of the graphic to expose the adhesive on the back. Press the folded edge of the liner to create a crease.
3. Carefully position the film so it is properly aligned on all sides, then press the upper corners in place using light pressure. Do not stretch the film when pushing into corners.
4. Using your hand or a soft plastic squeegee, lightly press the film in place. Working from the top of the graphic to the bottom. Continue by peeling away the liner and applying light pressure to the film to attach it to the glass.
5. Continue in this manner until the liner is completely removed and the window graphic is in place. Finally, squeegee the film from the center and work outward in all directions.
6. Using a razor knife, trim away any excess from the edge while being careful not to cut so deeply that you scratch the glass or damage any rubber window seals.
7. Using a long straight edge, carefully measure and cut the film back 1/2” from the window gasket. Remove waste and re-sgueegee the edge. Ensure exposed glass is clean and carefully apply edge seal tape so that there is half on the graphic and half on the glass.

Notes

- These films require a dry application method. Do not use water or application fluids.
- Do not stretch the film as you attach it to the glass surface.
- Do not squeegee the graphic down firmly until the window graphic is positioned correctly.
- Do not apply film or edge seal tape to the window gasket or frame.
- If edge seal tape is not used, the manufacturer warranty is void.

Seams

If seams are required in the case of window posters, it is recommended to use a butt seam. A way of butting graphic panels is to print the image slightly larger where the graphics will be seamed together, then overlap the two pieces of vinyl slightly. Using a razor knife and a straight edge, carefully cut through the vinyl where it is overlapped and remove the excess pieces of vinyl. Work the squeegee from top to bottom in a semi circle fashion to push the seam together and create an invisible seam. Edge seal tape is recommended.

SIGNMAX® PERFORATED WINDOW FILMS: PRINTING & LAMINATING

Print Profile

- Most printers have a profile for perforated films (i.e. Versaworks VTV2 View Thru Vinyl).
- Ensure ink limit does not exceed 230%, exceeding the ink limit will result in adhesion issues.

Ink Drying & Off Gassing

- We recommend an off-gassing time of a minimum of 48 hours with print laid out flat. If the print is rolled proper off-gassing is not possible. If rolling film is the only way for drying, ensure it is rolled as loosely as possible and allow for a few extra days.
- To check ink dryness prior to laminating, conduct a “kiss test” by folding and pressing together printed surfaces on a portion of the excess print. Pull it apart. If the print is dry, there will be very little discernible sound. If there is a sound on separation, the print is not yet dry or ready for laminating.

Lamination

Almost all problems of lamination are due to bad calibration of the laminator. Laminating is one of the main contributing causes of edge lifting and print curl. We recommend the following:

- Light pressure and slow lamination mode, you are laminating 7 mil of film with 4 mil of overlaminate. On some laminators, there may only be two settings. Ensure to use the lighter setting.
- The tension on the perforated film and lamination must be regular and identical. Signmax Optical Laminate is prone to stretching if too much tension is applied.
- When laminating, no heat is required.
- Allow for 24 hours after laminating prior to application.

Packaging & Transport

In order to avoid tunneling after printing and related problems during application, we recommend the following procedures:

- Always roll the film with the printed side on the outside.
- Do not wind it too tightly. Always try to wind as large of a diameter as possible (at least 12” diameter).

Removal

- Removal of Signmax film should not be a difficult task. Nevertheless, long term exterior exposure may increase the adhesive bond and the potential for adhesive residue being left behind on removal. If working with older films, try to remove it in one piece.
- Removal will be easier in warmer temperatures. In the case of colder temperatures, a hair dryer or heat can be used to soften the adhesive (be careful not to crack the cold glass with hot air).
- In the case of adhesive residue being left behind, use a cloth soaked in 3M Citrus Cleaner or another adhesive remover (follow manufacturers directions for application and safety precautions).

Thank you for choosing Signmax® products.

The information on these pages is based on our knowledge and experience. Not all aspects which have to be considered for application will be explained. Special and occupational knowledge and competence of a professional signmaker and installer are assumed. These films are designed for flat applications only. No legal binding warranty of certain qualities can be derived from our information.

WRI Digital Media

S·I·G·N·M·A·X®

THE EFFECTS OF SOLVENT INK ON VINYL

Exceedingly Recommended Ink Limit

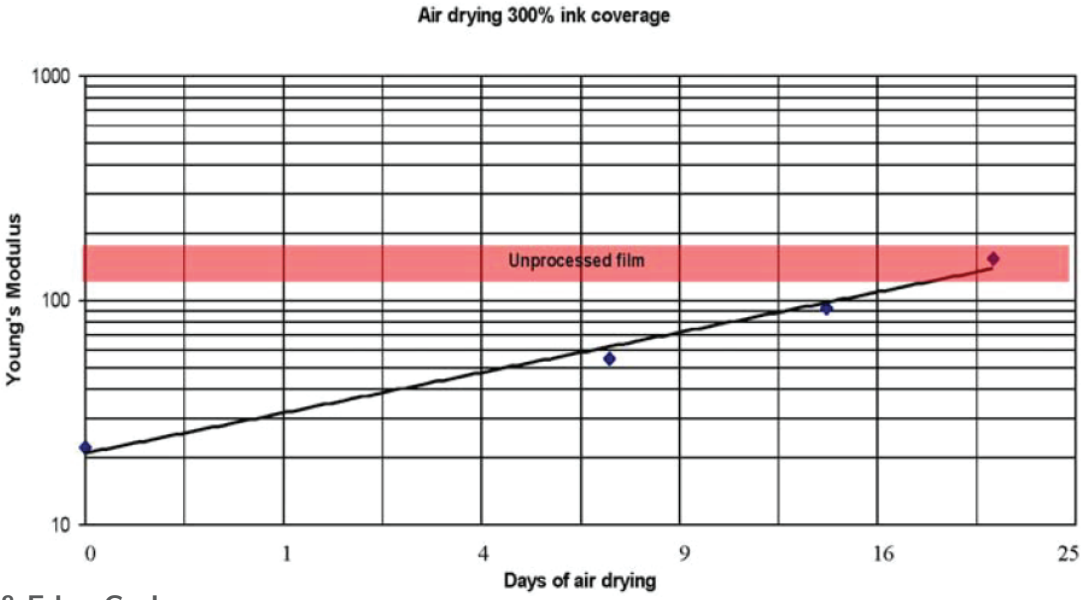
Eco-solvent and solvent inks contain a high percentage of solvent. If the ink is not evaporated quickly through heat and air, solvent migration into the adhesive can occur. The problem is compounded when too much ink is applied to the material. In an effort to produce high impact digital prints, production can sometimes unconsciously exceed the manufacturers recommended ink limit for a particular media. In the accompanying example the profile being used will result in 280% ink saturation, which depending on the media may be acceptable, but could well exceed the manufacturers recommendation and result in installation problems, performance and adhesion issues.
Always consult the manufacturers bulletins for the ink limit.

Details

Total Passes: 8
Dot Type: 4
Dot Size: SML
Separation: V2 LcLm Control
Single Colour Limit: C:65% M:100% Y:85% K:55%
Total Ink Limit: 280%
Printer Profile: XC-RVW-3951-Std.icc

How Long Until Dry?

When too much ink is applied, the conventional wisdom is that a little extra drying time will overcome the problem. In reality, it can take up to 30 days for the adhesive of a media to return to the same state as unprocessed film. Film wants to move as it dries. The more ink on the film, the more it wants to move. The weaker the adhesive, the less effective it is in restraining the film from movement.



Effect of Ink - Shrinkage & Edge Curl

More ink makes the film shrink more. Generally, cast films will shrink in both directions, across and down the web. Calendared vinyls are pretty stable cross the web, but will move a lot down the web. The two most important keys to successful printing are: 1. setting the correct ink limit and, 2. proper drying of your printed graphic.