

General Procedures for Interior and Exterior Dry Applications

GENERAL GUIDELINES

Tools

Masking Tape, 1 inch or wider
Plastic Applicator - Available from Seventy-Seven Signs
Utility knife or Exacto knife

Temperature and Environment

Below the minimum recommended application temperatures, films and sheetings become stiff and brittle. The adhesive cannot bond adequately with the substrate. Graphics may be applied using the dry application method in temperatures as low as 4°C, but Seventy-Seven Signs recommends 10°C. The incorrect temperature may prevent the film from performing as expected.

PRE-APPLICATION INFORMATION

General

If the graphic does not have an application tape, use a low friction sleeve (available from Seventy-Seven Signs) on the applicator to minimize scratching the graphic.

When to Use Wet Application Methods

Only use an application liquid such as detergent and water if that method is *specifically recommended*.

When to Use Dry Application Methods

Any liquid remaining under the graphic prevents it from adhering properly. Certain substrates are very difficult to dry. We recommend dry application for the following situations:

Perforated Window Graphic Film with an overlaminated.
Vehicles.

Uneven and non-flat application surfaces.

Graphics subjected to freezing conditions within several days of application.

Graphic Placement

Proper placement of the graphic can make the job easier. To minimize application problems, follow these guidelines for positioning the graphic.

Note: If you lay the graphic on the floor, it will pick up dirt on the back and transfer it to your clean substrate.

Test your layout by temporarily positioning the graphic on the substrate. Use masking tape to hold it in place. This ensures that the graphic will fit and all the pieces are accounted for.

SUBSTRATE REQUIREMENTS

Wet application is not recommended for vehicles.

Films and sheetings can be applied to most substrates that are:

Clean. All substrates must be considered contaminated and must be cleaned prior to application of film or sheeting, with the last cleaning step being done *immediately* before application.

Dry. Any moisture trapped beneath the graphic will cause the graphic to fail prematurely. Moisture prevents the adhesive from adhering correctly, can cause bubbles, and can freeze in cold environments.

Smooth. It is more difficult for the adhesive to make good contact with textured or rough surfaces.

CLEANING METHODS

There are two basic cleaning methods: General Cleaning, and Isopropyl Alcohol Cleaning.

Using improper cleaning methods and techniques before applying the film voids the warranty.

Method 1: General Cleaning

1. Use detergent and water to clean the substrate.

For most surfaces, interior or exterior: Wash the substrate with 1 ounce of synthetic detergent per gallon of lukewarm water. Avoid soaps or preparations that contain waxes, oils or lotions. Be aware that some window cleaners contain waxes.

2. Dry thoroughly with clean, lint-free paper towels.

Method 2: Isopropyl Alcohol Cleaning

Note: Isopropyl alcohol evaporates quickly: you must wipe the substrate before it evaporates. The evaporation rate increases in warm and/or windy environments.

1. Saturate a clean paper towel with isopropyl alcohol (IPA).
If you are using industrial grade IPA, mix it in a ratio of 2 parts water to 1 part IPA.
If you are using rubbing alcohol, do not dilute it.
2. Wipe with a lint-free paper towel before the IPA evaporates from the substrate.
3. Make sure the substrate is completely dry. If necessary, use a heat gun to dry out any retained moisture.

Wood Products

Because wood absorbs moisture, it must have a thick, smooth coating of high-quality paint on both sides and all edges.

All faces of substrate must be primed and painted with high-quality exterior wood paints.

Painted or Primed Substrates

Follow the drying and curing times recommended by the paint manufacturer. Under-cured paint may outgas, prevent the adhesive from adhering adequately, or prevent a removable or changeable product from removing as expected.

APPLICATION INSTRUCTIONS

Applying a Graphic

Top Hinge Method

1. Position the graphic, using strips of Masking Tape to hold the graphic to the substrate. Then, apply a strip of masking tape 2 to 3 inch (5.1 to 7.5 cm) wide, horizontally across the top of the graphic. See Figure 1.
2. For ease of installation, decal can be cut between separate elements, starting just above the top edge of the film, which is partially covered by tape. This makes an independent hinge for each element. **To avoid cutting the substrate, lift the graphic away from the substrate; cut only the film.**
3. Raise the graphic up over the top of the hinge and peel the liner back a few inches. See Figure 3.

Note: The entire liner may be removed at this time, if desired. However, for very large graphics, leaving the liner in place just prior to squeegeeing makes the graphic more controllable, keeps the adhesive clean, and reduces the possibility of stretching the film.

4. Begin squeegeeing at the top center. Squeegee the graphic beginning at the center of the tape hinge and working outward from the hinge to the closest edge. Use firm pressure on the plastic applicator and overlapping strokes. See Figure 4.
5. Hold the graphic away from the surface and gradually remove the liner while squeegeeing down to the end.

Note: Pull the squeegee, as shown in Figure 4, rather than pushing it. Pushing can stretch the graphic.

6. Remove the tape hinge. Squeegee the top edge.
7. Remove the application tape.

Application tape should not be left on the graphic. Prolonged exposure to sunlight will permanently adhere it to the graphic.

Remove the application tape from the graphic by pulling it back upon itself at a 180 degree angle. It is acceptable to tear the premask into manageable sized pieces.

Graphics may not develop ultimate adhesion if they are applied near the minimum application temperature and then put immediately into service in winter weather. To improve adhesion, which reduces edge lifting, use a heat gun along the rivets, film edges, substrate seams and overlaps when re-squeegeeing.

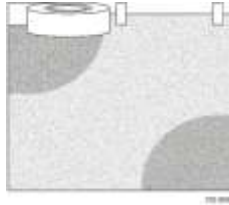


Figure 1. Make a Top Hinge



Figure 2. Cut Between the Elements of a Prespaced Graphic



Figure 3. Lift the Graphic and Peel Back the Liner

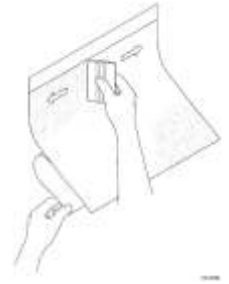


Figure 4. Squeegee a Top Hinged Graphic

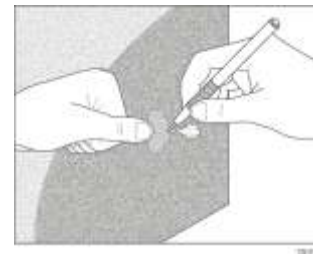


Figure 5. Puncturing and Rubbing Out a Bubble

Removing Air Bubbles

1. Inspect the graphic for bubbles.
2. Puncture the bubble at one end with a pin or an Air Release Tool.
3. Press out the entrapped air by moving your thumb toward the puncture. See Figure 5.
4. Small bubbles will release over time with sun Exposure.



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