

General Procedures for Interior and Exterior Wet Application

GENERAL GUIDELINES

This bulletin shows you the general wet (detergent and water) application method for applying films to a variety of flat surfaces. Use these instructions in conjunction with any other related product and instruction bulletins.

Note: The application technique described in this bulletin is not recommended for any vehicle applications or for compound-curved, textured, rough or ribbed surfaces.

Tools and Materials

Plastic Applicator-available from Mastergraph

Masking Tape

Razor Blades/Cutting Knives

Small container of dish detergent

Spray Bottle or Plastic Garden Sprayer

Temperature

Apply the film when the air and application surface temperature is at least 60°F (16°C).

Clean Work Area

Make sure the work surface and surrounding area are properly cleaned to avoid contaminating the graphics.

SUBSTRATE REQUIREMENTS

To obtain a high-quality, long-lasting graphic, use the proper preparation and application techniques for each type of substrate.

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.

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.

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.

APPLICATION INSTRUCTIONS

Application Procedure

Prepare a Detergent-Water Solution

Prepare a solution of 1/3 teaspoon (2 ml) of dish detergent. For each 1 quart (1 liter) of clean, cool water. One quart of solution is usually enough to complete a single small- or medium-sized graphic. After mixing the solution, pour some or all of it into a spray bottle.

Apply the Film

Note: If you are using a film with a paper liner, keep the liner dry until you are ready to remove it.

1. If possible, lay the substrate face up on a clean surface.
2. Spray the substrate with solution.
3. Wipe off the film with a clean, lint-free cloth.
4. Lay the film, liner side up, in a dry location near the wetted surface.
5. Lift one corner of the liner while spraying the solution onto the exposed adhesive. See Figure 1.

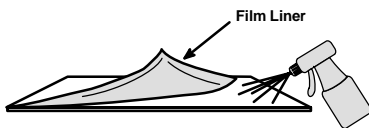


Figure 1. Lift Corner; Spray Solution

6. Continue to remove the liner and spray the solution. By the time the liner is completely removed, the entire adhesive surface should be wet. Spray on more solution, if necessary.

Note: Depending upon the size of the graphic, you may need another person to help you complete the next step.

7. Lift and turn over the film, adhesive side down, onto the wetted substrate and correctly align with any registration marks. See Figure 2.

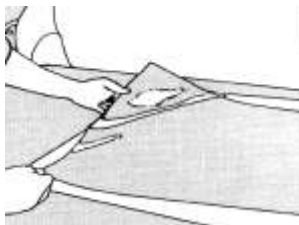


Figure 2. Lifting and Turning over the Film

8. If the film does not have a premasking tape on it:
 - a. Spray the entire top of the film with more solution.
 - b. Use the applicator to apply firm pressure to the entire graphic, beginning in the center and working toward the edges in overlapping strokes as in figure 3.
 - c. Wipe dry the entire surface.
9. If the film has premasking tape on it:
 - a. Use the applicator to apply *firm* pressure to the entire graphic, beginning in the center and working toward the edges in overlapping strokes as in figure 3.
 - b. Wait 15 to 20 minutes, depending upon the substrate temperature, for adhesion to build.

Note: Do not leave the premasking tape on the graphic for more than 24 hours after application.

- c. Begin at a corner and carefully pull away the pre-mask from the film at a 180 degree angle.
- d. Use the applicator to apply firm pressure again to the edges of the film.

Note: When you remove the premasking tape from a graphic, the pulling force loosens the adhesive at the edges of the graphic, particularly when the graphic is applied at or near the minimum application temperature. It is imperative that you resqueegee the edges after removing the premasking tape.

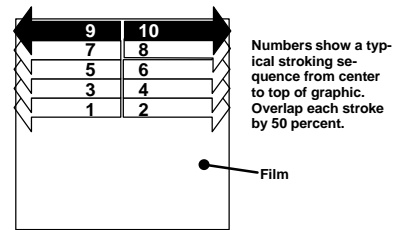


Figure 3. Smoothing a Small Graphic

10. Remove any remaining bubbles from the film:
 - a. Puncture the film at one end of the bubble with the air release tool or a pin.
 - b. Use your thumb to push the trapped air or wetting solution toward the puncture. See Figure 5.

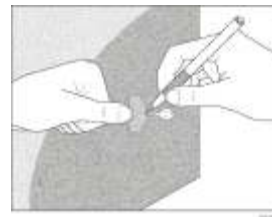


Figure 5. Removing Bubbles from the Film

11. If necessary, trim the graphics as described within 90 minutes. The adhesive bond builds with time and trimming becomes more difficult after 90 minutes.

Cutting and Trimming

If possible, cutting and trimming should be performed before application to prevent damage to the substrate. However, if necessary, you can cut and trim within 90 minutes after application. The adhesive bond builds with time and weeding becomes more difficult after 90 minutes.

Cut with a conventional fixed or swivel graphic knife or a sharp razor blade in a safety holder.

Avoid or minimize over-cuts to eliminate or reduce light leaks.

To trim, carefully hold a corner of the weed at a 90 degree angle and pull it with sharp, short jerks.

Remove any adhesive residue on the substrate by rubbing it with your thumb or finger.