HP Adhesive Vinyl and Overlaminate installation tips and tricks

About the product

One of the most popular and cost-effective ways to create graphics for POS, wayfinding, advertising and other applications is by using pressure sensitive vinyl. It is important that proper installation techniques and correct substrates are used to ensure the lifespan of the graphic meets proper specifications.

Surface Preparation

- The application surface should be clean and free of any dirt, dust, grease, oil, wax, or foreign matter. A product like Rapid Prep can be used to clean many of these compounds from a surface.
- After a thorough cleaning, the surface should be wiped down with a clean lint-free cloth and water. Finally, to ensure all oils are clear of the surface, a 50/50 solution of isopropyl alcohol should be used to complete the preparation process.

Ink limit: Typically, maximum ink limit is 250%.

To ensure best performance, it is important to choose the right ICC profile for your printer and media. Visit HPLFMedia.com/en/paperpresets for downloadable paper presets and rip profiles.

Recommended tools

1. Isopropyl alcohol
2. Lint-free cloth
3. Rapid Prep cleaner

Surface Types

Glass

Clean the glass surface thoroughly with a non-ammonia-based cleaner (products like Windex have additives that may leave behind a residue). Many cleaning products have chemical agents that can cause a bond failure between the substrate and the adhesive. As stated above, cleaning should be followed by a final wiping with isopropyl alcohol (IPA/Rubbing alcohol 50/50).

Using a lint-free towel or cloth, dry the surface.

Please note, the rubbing alcohol may cause the surface to cool, possibly causing condensation. Allow the surface to remain at room temperature for 10 minutes before applying the graphic.

If applying graphics in cold weather using wet application, the adhesive will not adhere properly to the window. It is important to avoid water-based application fluid when application temperature is below manufacturer's recommendation.

Important note for exterior window application: Glass absorbs heat when exposed to sunlight. The degree of absorption across windows can vary because of shading, heating and cooling, ventilation, and insulation from window frames. These temperature differences across the window can produce stress, which can cause glass breakage. Window durability varies based on window size, glass thickness, glass treatments, quality and design.

Metal and Painted Metal

Some metal and painted metal surfaces may require the use of solvents to properly prepare the surface.

Plastic

All plastic and low surface energy (LSE) substrates should be tested for adhesive compatibility. Due to the wide variety of these substrates, cleaning fluids will vary.

Sign Grade Wood/MDO

Wood surfaces should be sign-grade and buffed with a solvent saturated steel wool (rubbing alcohol or mineral spirits are most commonly used). Wipe clean and allow the surface to dry (outgas) for at least 8 hours. Hardwood surfaces should be clean, primed and painted with a smooth, properly cured, glossy exterior-rated enamel paint prior to vinyl application. A two- to three-week dwell period is required to ensure the paint is smooth and has properly cured and dried.

Solution Types

Please be advised that, although customarily used, the mixture of dish soap and water is not designed for use with pressure-sensitive vinyl media. It may be economical, but dish soap has detergents and is not designed to be used with self-adhesive vinyl media. There may be soap surfactants that will interfere with adhesion and soapy bubbles can be difficult to squeegee out of an applied decal as well.

Preferred application fluids can be very useful when using a product with an aggressive adhesive:

Recommended application fluids (for products available in the Americas)

Application fluid	Instructions
Marabu Action Tac	Works as a cleaner and application fluid. Works on all vinyl grades.
Marabu Window Juice	Surface must be clean before use. Can be used to apply the graphic as well as remove the transfer tape (spraying it after application to moisten).
Marabu Splash	Surface must be clean before use. Mix with water.
Rapid Tac	Cleans the surfaces as well as allowing the film to "float" until it is properly positioned.
Rapid Tac II	Works great for glass applications and colder applications 20˚ F to 140˚ F. Works with economy calendared, intermediate calendared, high performance calendared, metallic, reflective, polyester, Mylar and other specialty films.
Sure Glide	Has an adhesive activator which helps set adhesive and speed drying time when applying on metal and other hard surfaces.

It's important to avoid using too much application fluid. When that happens, the result is more time and effort trying to remove excess fluid. It is imperative that all fluid is removed to ensure maximum bond.

Application Temperature

Solvent and Latex Ink

Before finishing, trimming and installing the graphic, allow the ink to completely evaporate and dry for a minimum of 24 hours to ensure the solvents are removed from the print. Prints should be spread out and left to dry. Failure to do so, may facilitate solvent penetration resulting in vinyl degradation. Below are the manufacturer's suggested application procedures for general graphics using HP Adhesive Vinyl and Overlaminate.

- **Dry Application:** 40° F or higher
- **Wet Application:** 60° F or higher

Wet Application Process

Wet Application (recommended only under the following conditions):

Wet application is recommended only for use with HP Gloss Polymeric Overlaminate and HP Matte Polymeric Overlaminate and is typically used for large surface applications on glass.

Application fluids used with water-based adhesives will temporarily cause the adhesive to become milky or hazy when water reacts with the adhesive. Based on temperature and humidity, it can take time before the adhesive becomes clear again. It usually takes 24 to 48 hours for the milky appearance to dissipate, under normal climate conditions.

First Option – Use paper application tape on the graphic

1. Using the method listed above, prepare the surface.
2. Remove the release liner from the graphic. *Note: If you are installing a large graphic, place it face down on a flat surface to remove the release liner.*
3. Lightly mist both the substrate and adhesive side of graphic (remember, not too much fluid).
4. Align the graphic by "floating" it into the final application position on the substrate.
5. Using good pressure, squeegee the application fluid from the center out and make sure all fluid is removed and there are no bubbles.
6. Soak the paper application tape with the application fluid or water and let it sit for about 30 seconds. Peel the tape at a 180° angle and remove any additional residue.
7. ALWAYS re-squeegee after removing application tape; during the removal of tape it may loosen the edges of the graphic.

Second Option – No application tape on the graphic

1. Using the method listed above, prepare the surface.
2. Mark the desired decal position.
3. Lightly mist the surface with an approved application fluid.
4. Remove the release liner from the graphic. *Note: If you are installing a large graphic, place it face down on a flat surface to remove the release liner.*
5. Position the graphic onto the moistened substrate. To help "glide" the graphic to the correct position, you may wish to lightly mist the face of the graphic. If there are any scratches or imperfections on the squeegee, the graphic could be damaged. A wet application squeegee is recommended.
6. Using good pressure, squeegee the application fluid from the center out and make sure all fluid is removed and there are no bubbles.

Overlaminate Application Process

In many applications for pressure sensitive graphics, the print may need protection from exposure to ultra-violet light, abrasion, or to satisfy a need for a consistent surface finish. Additionally, inks that are based primarily on dyes will fade quickly with sun exposure and will require protection to extend the life of the inks. The print service provider has a choice to apply an overlaminate or a clear coating to provide this protection. Applying a clear pressure sensitive overlaminate vinyl to a graphic image will provide a thicker, smooth finish with consistent surface gloss and higher UV protection than liquid clear coating.

Use of an automated laminator, with trained personnel will give superior results when compared to manual application of overlaminate film. Tension, speed, and pressure can be controlled mechanically so the print looks great from edge to edge and the applied film is virtually invisible.

1. Make sure the ink on the graphic is thoroughly dry or cured before application.
2. Fold the release liner back from the overlaminate and position it on the graphic. Press from the center out.
3. Use a squeegee on the edge and push the overlaminate down the center removing the release liner at the same time until the overlaminate has been completely adhered.
4. Trim the excess.

Unsuitable Uses

HP adhesive vinyl products are not designed for the following uses and could result in graphic failure:

- Low surface energy substrates
- Paint that is not thoroughly cured or dried and have poor paint-to-substrate, or paint-to-paint bond
- Watercraft
- Substrate surfaces that are not clean and smooth
- Graphics exposed to oil, harsh chemicals, or gasoline vapors/spills

Factors that affect graphic performance life

- Combinations of graphics materials used
- Complete ink drying or curing
- Selection, condition and preparation of the substrate
- Surface texture
- Application methods
- Angle and direction of sun exposure
- Environmental conditions
- Cleaning or maintenance methods
- Power washing applied graphics may impact the adhesion of the graphics.

Storage and Operating Conditions

HP self-adhesive products are recommended to be stored in original packaging. Rolls should not be stored lying without end caps. Keep in a cool, dry place protected from sunlight (69-75˚F/21-24˚C) and 50% relative air humidity. Bring the film to room temperature before using. Please see product data sheets.

Shipping finished graphics

Graphics should be shipped flat (may be separated by paper) or rolled printed side out on a 5-inch (13 cm) or larger core. This helps prevent the liner and the application tape (if applicable) from popping off.

Additional Benefits of HP Adhesive Vinyl and Overlaminates

- The complete printing solution—ink, media and printer are engineered to work together seamlessly.
- REACH compliant*—providing health and environmental assurance.
- Produces consistent, reliable image and print quality, which reduces set up time, waste and labor; and increases productivity.
- Consistent production and bubble-free applications because the lay-flat, low-profile release liner saves time and money.
- Optimal Gloss Air GRP is a multi-use film, which reduces inventory cost.
- The hiding power of the gray adhesive provides consistent image quality, regardless of the substrate color.

Proper application is critical to the lifespan of pressure sensitive graphics. It is important to follow these instructions to prevent graphic failure. These procedures and recommendations are designed to ensure graphics are properly applied resulting in the expected life of the graphic.

This information is given without guaranty and does not constitute a warranty. The purchaser should test and independently determine—prior to use—the suitability of any material for their specific purpose.

If you have additional questions concerning graphic application, please contact your reseller or Brand Management Group at **888-893-4668**.

MADE IN THE USA

* See the HP REACH Declaration published at HP Printing Products and Consumable Supplies.