



A Guide to Understanding Walls and Applying Graphics to Walls

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Not All Walls Are the Same

Graphics made with adhesive-backed 3M Graphic Films can be applied to most interior or exterior surfaces. But did you know that applying graphics to a wall is different than applying it to a truck or vehicle? Not only that, but the wide variety of wall surfaces used in today's building and remodeling trade require that the graphic specifier and applicator consider many factors to ensure a satisfactory graphic application.

Each type of wall has unique characteristics to consider when selecting and processing the film, preparing the wall for the application, applying the film, and if needed, removing the film.

In this bulletin we will:

1. Assess and explain factors that help you achieve maximum satisfaction with your graphics. This includes:
 - Substrate characteristics such as surface type and texture and the affect that has on film adhesion.
 - What to look for and how to test to ensure a good bond between the wall's substrate and surface covering.
 - Types of primer and paint and their bonding characteristics.
 - The impact on the substrate when removing a graphic.
 - Selecting the right product for your graphic adhesion requirements and removal expectations.
 - Application techniques that improve film application to different wall substrates.
2. Help you identify economical options, minimize removal problems, decrease maintenance costs, reduce installation difficulty and time, and ultimately, provide a better product and service to your customer.

Wall Substrates, Surfaces and Textures



Key to Success

Understanding the types of walls you have to deal with helps you select the right film for the job.

Determining Type of Texture

Many walls consist of a *substrate* - the supporting structure - with a coating or covering such as paint, varnish, wallpaper or other surface finish. That finish becomes the wall's *application surface*. For other walls, the substrate is also the wall's surface. For example, brick, concrete block, ceramic tile or laminate may function as both a substrate and the application surface.

All walls have some sort of *texture*, which can range from a very smooth texture, such as glass, to heavy textures, such as brick. Texture has a significant affect on which film can be used, how easily the film can be applied, how well it adheres and whether it can be easily removed.

- **Smooth textures** provide the easiest application since the adhesive can make contact with the entire surface.
- **Unsmooth textures** have high spots and low spots, which range from just a little texture (like fine sand paper) to heavy texture (like brick). Extra effort and more time-consuming application techniques may be required to maximize the amount of film adhesion to the wall. If the texture of the wall surface is too heavy, the direct application of 3M graphic films may not be practical.

Note: **To measure initial adhesion results**, use the 3M Wall Test Kit. If the adhesion results are too low (<250 grams), surface modification is recommended. Each wall test kit includes a ScotchBrite™ General Purpose Scrubbing Pad to lightly abrade the surface and improve adhesion. An alternative method to making such modifications is to apply a secondary smooth surface. The secondary surface is attached to the existing textured surface and the graphic films are applied to the secondary surface.

Note: Pre-cast concrete material can have an oily surface and be specked dust because of the production process. These decreases the graphic's bond to the concrete surface.

Unsound or Damaged Wall Surfaces

An unsound wall surface is one that shows signs of a loose, inconsistent or damaged surface finish. This may include loose paint, mixed surface finishes, abrasion, gouges, etc.

Poured concrete wall systems may look sound but upon using the wall test kit, you may find that the film strip pulls off the paint and the very fine top surface of the poured concrete. This is due to the way the concrete surface sets up at the first 0.5-1.0 mm of depth. The top layer is often loosely bonded together, even though it does not appear to be. When paint bonds tightly to this surface, the force used in pulling off an adhesive product may fracture the concrete layer, pulling it and the paint off .

Every effort should be made to repair unsound or damaged wall surfaces before applying the film. If this is not done, the application may be more time consuming, the applied graphic may not look satisfactory, and the surface may be damaged when the graphic is removed.

Inspecting and Repairing Walls



Key to Success

Inspecting and repairing walls before you apply the film eases installation and helps ensure good removal.

Common Wall Problems

These are common wall problems. Each problem can contribute to damage during graphic removal if it is not repaired or considered prior to graphic application.

- The initial paint bond was poor.
- Poorly painted wall edges.
- Patched areas that have not been primed.
- Moisture behind the wallboard, which can cause the wallboard paper to release. Watch for walls that back up to cooling systems, water pipes, overhead windows or water pipes that could drip on the graphic and boarded up windows. These areas are prone to condensation that may not be obvious at the time of installation.
- Dust/dirt/vehicle exhaust contamination on the wall.
- Wallpaper that is not securely bonded to the wall in all areas.
- Film may not adhere well to vinyl wall covering. Always test the surface for acceptable adhesion characteristics.
- Contamination by other products on the wall that was not properly cleaned.
- Cuts made to the graphic during the installation. These cuts can penetrate the film and the substrate/surface.

Paint and Primer Recommendations



Key to Success

Choosing and using the right primer and paint may have a significant affect on film adhesion.

The type of primer and paint used on a wall can have a significant affect on the success of your graphic application. When possible, we recommend using primer and paint from the same manufacturer, since the products are usually designed to work together. The goal is to achieve a good bond between the substrate, primer and paint.

Laboratory tests using Pittsburgh® Paints and Sherwin-Williams™ Paints have been shown to provide acceptable film adhesion and removability characteristics, although paint from other manufacturers may be satisfactory. 3M does not endorse any particular paint manufacturer.

About Outgassing

As a wall finish dries, it releases certain gases until it is fully dried and cured. Applying a graphic before the finish has cured can result in lifting, bubbles, and premature graphic failure.

Paint and Primer Application Tips

- Use two coats of primer, if necessary, to get good coverage.
- Use a roller or high pressure spray system to apply primer and paint. These tools provide better coverage than a brush.
- Always follow the drying and curing times recommended by the paint manufacturer. Paint may continue to dry over a period of several days and up to a month. Graphics applied to an uncured paint may lift or fall off.

Primer		
Type of Primer	Considerations	Recommendations
Oil based, high quality	Good coverage	Kilz® brand primers have shown excellent results.
Tinted primers	May bleed through certain films or be stained by the film's adhesive	Use the highest quality paint to reduce staining or bleed through problems

Paint		
Type	Considerations	Recommendations
Solvent based	Good film adhesion	Perform standard paint/primer adhesion tests
Latex		
Powder-coated		
Urethane	Excellent film adhesion and removability	
Baked Enamel Paints	Best universal surface	

Paint Additives		
Type	Film-to-Paint Adhesion Characteristics	Recommendations
Low luster, matte or satin	Usually good film adhesion	Determine if matting agents reduce bonding characteristics. Perform both paint/primer tests.
Silicone or graffiti-resistance agents	May inhibit good film adhesion	Perform standard paint/primer adhesion tests
Migrating particles*	May inhibit good film adhesion, may stain	
Textured paint	Requires special film and application instructions. Contact Commercial Graphics Technical Service at 1-800-328-3908.	

*Some particles in a paint's chemistry can migrate over time. Although it is difficult to know if this will be a problem until the graphic is removed, you should be aware of it.

Air Quality Regulations

State Volatile Organic Compound (VOC) regulations may prohibit the use of certain cleaning solutions. For example, the California South Coast Air Quality Management District prohibits use of certain solvent-based solutions without a permit and other California AQMD's prohibit use of certain solutions without a permit or a regulatory exemption. You should check with your State environmental authorities to determine whether use of this solution is restricted or prohibited.

Paint and Primer Adhesion Tests



Key to Success

This test is quick and easy. It is also the best way to help ensure adequate film-to-paint bond. It should be used on all other unpainted surfaces

Any visible signs of peeling, lifting, or bubbling of the paint indicates poor paint-to-substrate bond.

Some poor paint-to-substrate bonding may not be readily apparent. If there are multiple layers of paint on the substrate, the bond of one or more layers to another layer may not be adequate.

Purpose of Test

All painted and unpainted surfaces should be evaluated for how well a 3M graphic will bond. This is your best assurance against graphic failure. It also helps you determine the most appropriate film for your graphic.

Limitation of Test

3M cannot be responsible for variations in surfaces that may result in some surface damage upon removal.

Test: Film Adhesion to a Painted Surface

Perform this test on all new and old painted and unpainted surfaces before applying a graphic. The test will be performed three times for each type of film you want to test.

This test requires using a 500 gram spring scale, which can be purchased from Ohaus at 29 Hanover Rd., Florham Park, N.J. 07932. The cost is less than \$10. For applications that exceed 500 grams, other spring scales with 1000 gram or 2000 gram maximum read out are also available through Ohaus.

1. Clean the wall where the test will be conducted.
2. For each film that you plan to test, cut three 1 inch x 10 inch strip of the film.
3. Remove the liner from the film test strips. Initially apply all three test strips to the clean test area using your thumb or the application brush you plan to use.
4. Now use the rivet brush on the test strips. Work in the long direction of the test strip three times, using firm pressure and a circular circular motion.
5. Wait a full 15 minutes.
6. Pull the top two inches of the test strip away from the substrate. Lace it through the scale's hook and fold it over to adhere the film to itself. Or, fold the top one inch over to adhere the film to itself and punch a hole.

7. READ THIS STEP THOROUGHLY BEFORE REMOVING THE TEST STRIP.

Hold the scale in your hand so the gauge faces you. Slowly pull down on the test strip at about a 130° angle. Do not stop once you have started. As you pull off the test strip, take note of the adhesion values and the release characteristics of each test strip as the film begins to release from the wall surface.

- A test strip that exhibits a smooth, consistent release characteristic indicates that this film is a suitable choice for that particular wall surface.
 - If the test strip releases jerkily or unevenly, there may be inconsistent or low adhesion value. If two or three of the three tests for that film release in this way, that film is not suitable for that particular wall surface.
 - Acceptable adhesion is in the range of 250 to 450 grams.
8. Certain graphics require greater adhesion levels. They include graphics that are:
 - exposed to interior environmental changes, such as direct sun light or close proximity heat sources;
 - overlaminated;
 - made with film having the Comply™ Performance feature.
 9. Repeat the test two more times and average the results to make the most informed choice.

Film Adhesion Characteristics

Adhesion is the ability of the film's adhesive to bond to the substrate. The amount of both initial and final adhesion varies with the type of adhesive used on the film, the substrate/surface, and the application temperature and application techniques. The bond builds with time. Film may never achieve its full bond if the graphic is poorly applied or you are using the wrong film/adhesive for the substrate.

- **Adhesion, final.** The maximum amount of achieved by a film, usually in 24 to 48 hours after application except in cool temperatures.
- **Adhesion, initial.** The amount of bond needed to hold the graphic in place during application.
- **Size of graphic.** The larger the graphic, the greater the adhesive bond to the wall must be to support the weight of the graphic.
- **Imaging method.** The imaging method used on the film can effect the adhesion characteristics. Refer to the film's Product Bulletin for complete details.
- **Stretching film.** Films that are stretched during application may later shrink. This decreases wall adhesion and the graphic may fall off prematurely.

Film Processing Considerations

The common methods for processing large format graphics include screen printing, electrostatic imaging, thermal ink jet printing and piezo ink jet printing. Many films are designed exclusively for one processing method, while other films may be suitable for a variety of processing methods.

Processing methods and conditions may affect the film application and performance. Always refer to the film's Product Bulletin for complete details.

Understanding Removal Factors



Key to Success

Before selecting a film, be sure you understand the customer's requirements for removal.

Removing a graphic can damage the wall's surface/substrate. You can reduce or eliminate claims due to removal damage by:

- Inspecting the wall and repairing any damage before applying the film.
- Clean the walls according to 3M guidelines in Instruction Bulletin 5.1 before applying the film.

What Determines if a Graphic is Removable?

Some films are designed to be easily removed while "permanent" films require extra effort and tools and are more likely to damage the wall during removal.

√ Important Note

Due to the great variety of wall surfaces/substrates, there is no guarantee against damage-free removal. However, past experience suggests that films that adhere to substrates having sound surface characteristics and within the adhesion range of 250-450 grams/inch, should provide reasonable removal characteristics. Typically, the greater the adhesion level, the greater the risk for removal damage.

Some films used for interior wall graphics have a removable adhesive. That is, the adhesive is designed to make film removal clean and easy within a warranted period. These films may be classified as changeable and/or removable.

Many films that are suitable for application to a wall have a permanent adhesive. Films with permanent adhesive are very difficult to remove from a smooth wall surface, but have characteristics that may make it a good choice for highly textured wall surfaces.

The ease with which a graphic can be removed depends on factors such as film properties, type of substrate/surface, initial adhesion test values, graphic imaging method, and ambient exposure characteristics. However, texture is the most important factor in removability.

- It is usually easier to remove graphic from a textured surface than a smooth surface since there is less adhesive contact. However, outdoor exposure conditions and how long the graphic has been up can decrease the ease of removal.
- Wall destruction can occur when cuts and moisture problems are hidden under the graphic.
- Basic removal technique:
 - Cut the graphic into strips 16 inches wide or less. Be careful not to cut the wall surface.
 - Use a minimum 150° pull angle to reduce the amount of adhesive residue that remains on the surface.
 - Pull the graphic off slowly while maintaining the pull angle.

Identifying Your Wall Surface

These descriptions, and the images on the next page, can help you determine both the texture and wall composition of your wall surfaces. These characteristics are important in selecting the right film.

Texture

Every application surface has some sort of texture. The texture might be as smooth as glass or as rough as heavily textured concrete - - and everything in between.

Smooth textures. Little or no surface variation.

Medium textures. Relatively equal distribution of moderately high and low spots.

Heavy textures. Irregular and severe high spots and/or low spots.

Other. Brick, concrete block, stucco and tile.

Wall Composition

This is the material that your wall is made of. Refer to the photographs on the next page.

Brick. A kiln-dried, hard clay surfacing material, thicker than tile, for interior or exterior walls. Inherently smooth, but may be patterned or textured before firing.

Painted wallboard. Common interior wall surface, primed, painted and thoroughly dried. Texture varies depending on paint technique.

Concrete. A building material made from a mixture of portland cement, water, fine and coarse particles. Texture can range from smooth to heavy.

CMU (Concrete masonry/concrete block). A usually hollow building block made with concrete. May be painted or unpainted. Texture is usually medium.

Stucco. A cement or plaster mixture that is hand or machine applied to interior or exterior walls. Our example is between smooth and medium texture, although texture can range from smooth to heavy.

Tile. A kiln-dried, thin, hard clay surfacing material for interior or exterior walls. May be glazed or unglazed. Texture is usually smooth.

Vinyl wallcovering. A thin to heavyweight vinyl material used to cover interior walls. Texture can range from smooth to heavy.

Smooth Concrete



Smooth Vinyl Wallcovering



Smooth Painted Wallboard



Medium Concrete



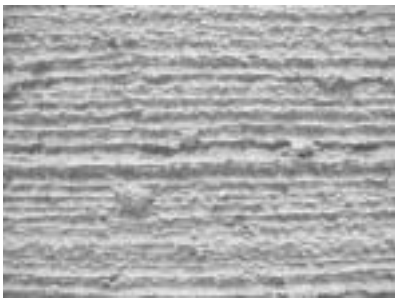
Medium Vinyl Wallcovering



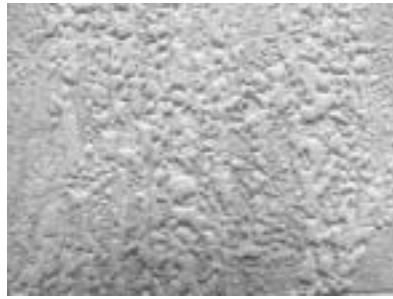
Medium Painted Wallboard



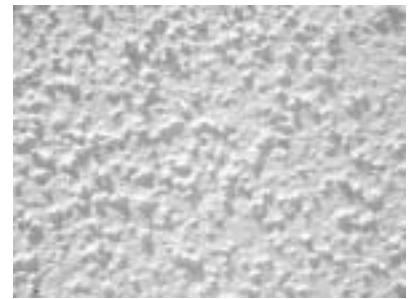
Heavy Concrete



Heavy Vinyl Wallcovering



Heavy Painted Wallboard



Other - Tile Glazed



Other - CMU/Concrete Block Painted and Unpainted



Other - Brick



Other - Stucco



Applying Graphics to Walls

These instructions are for applying graphics to walls. For any other type of application, please refer to 3M Related Literature in the base film's Product Bulletin, or visit our website at www.scotchprint.com.

Who Can Install Graphics?

Poster-size graphics may be installed by a non-professional installer with relative ease. Larger graphics can be more difficult to handle and align, and multi-panel graphics require skill that is acquired only through practice. Therefore, we recommend contacting a professional graphics installer for assistance with larger graphics.

Two people are required to apply most graphics. Notice the dark and light hands in the Application Methods illustrations later in this bulletin.

Know What Film Is Used in Your Graphic

The type of **wall surface** and its **texture** affect how well film adheres, and if required for your job, how easily it can be removed. Be sure the graphics manufacturer tells you what film was used, and that you apply the graphic to a surface and texture for which that film is intended. Refer to the base film's Product Bulletin for recommended application surfaces.

Health and Safety

Caution

When handling any chemical products, read the manufacturers' container labels and the Material Safety Data Sheets (MSDS) for important health, safety and environmental information.

To obtain MSDS sheets for 3M products:

- By fax, call 1-800-364-0768 in the US and Canada or 1-650-556-8417 for all other locations.
- Electronically, visit us at <http://www.3M.com/msds>.
- By mail, or in case of an emergency, call 1-800-364-3577 or 1-651-737-6501.

When using any equipment, always follow the manufacturers' instructions for safe operation.

Caution

Any activity performed for a long period of time in an awkward position or with a high amount of force is potentially a risk for causing musculoskeletal strain, pain or injury. When applying graphics, follow these practices to improve comfort and avoid injury:

- Alternative your tasks during the application.
- Schedule regular breaks.
- Perform stretches or do exercises to improve circulation.
- Avoid awkward reaching.

Tools and Supplies

- Scotch™ Masking Tape, 2 inch wide
- Nylon bristle brush: Use a stiff nylon brush (e.g., household cleaning brush, floor brush) when applying graphics directly to wall surfaces. The brush should be kept to a maximum surface area of 18 square inches or about a 6 inch x 3 inch face.
- 3M™ ScotchBrite™ High Performance Cleaning Cloths
- 3M™ Rivet Brush RBA-1* and RBA-3**
- 3M™ Air Release Tool 391X
- Cutting tools, such as a razor blade with a safety holder
- Industrial heat gun; *must be capable of attaining 500 ° to 750 °F (260 ° to 399 °C), or equivalent*

*Available from 3M Commercial Graphics Division

** Available from Sharpline Covering Inc.
1-800-888-4888

Note: 3M™ Plastic Applicator PA-1 (Blue or Gold*) is not a recommended tool for application to wall surfaces since they are less effective when applying film to a textured surface.

Application Tapes

The use of application tapes (commonly called premasking tape) is NOT RECOMMENDED.

If your application absolutely cannot be applied without a premasking tape, please note that the premask tape may have a greater adhesive bond to the base film than the base film has to the wall surface. Removing the premasking tape generally lifts the graphic from the wall surface and compromises the adhesive bond of the graphic. If premask tape is used, you must thoroughly rebrush the entire graphic and all edges after removing the premasking tape.

General Instructions

Substrate Cleaning and Preparation

See Instruction Bulletin 5.1 for details on cleaning specific substrates. Listed are key aids for successful wall applications.

- If the substrate has any contaminants - dust, dirt, grease, loose paint, etc., the film will stick to that rather than the substrate, leading to graphic failure.
- Pay extra attention to cleaning wall edges and corners.
- Clean the substrate *immediately* before applying film so it is completely free of dust and contaminants.
- Smooth poured concrete walls or concrete block walls may require power washing or hand washing with a stiff brush and a detergent cleaner followed by a clean water rinse to remove grease and/or exhaust contaminants. Allow the surface to dry thoroughly (at least 24 hours) before applying the graphics. Brush the substrate lightly after drying and immediately before film application to remove any dust that may have collected

Should I Use a Wet or Dry Application Method?

Dry application. All wall films must be applied using a dry application method.

Wet application. This method is not recommended for walls. The only exception is for walls that may be exposed to grease-like contamination where a cleaning solution may be required for graphic maintenance. Smooth wall surfaces are easier to clean. If a cleaning solution is used, the wet wall surface must be allowed enough time to properly dry. Recommended dry time is a minimum of 24 hours. If the surface absorbs moisture, longer dry time may be necessary.

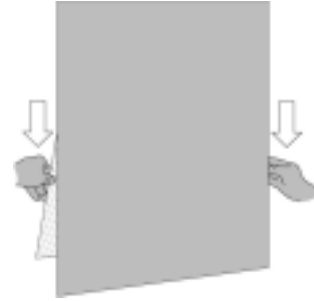
Plan Your Layout

To minimize application problems, which wastes time, test your layout by temporarily positioning the graphic on the substrate using masking tape.

Moisture that has penetrated wallboard will destroy the painted surface when graphics are removed. Remember that, especially in remodeling jobs, wallboard may have been placed over windows, cooling pipes, etc., that may produce moisture that is transferred to the wallboard.

Liner Removal Technique

Use two hands when pulling the liner from the film, using care not to stretch the film.



Note: Always remove the liner from the graphic rather than the graphic from the liner.

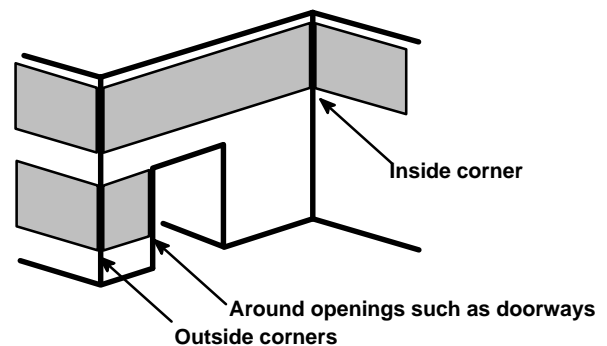
Application Technique

- Pull the brush with your hand, don't push it across the graphic, which stretches the film.
- Move the brush in a straight line - not in an arc.
- Use firm, overlapping brush strokes.
- Re-brush all edges after applying the graphic.



Trimming Required Around Certain Areas to Reduce Graphic Lifting

Certain areas of your graphic applications are more prone to damage than others from people or equipment rubbing against the edges. This includes areas around doors, openings such as vents, outside corners of walls and inside corners. To reduce the risk of damage and lifting, trim the graphic 1/8 to 1/4 inch from the edge. After application, rebrush all edges of the graphic to help ensure good edge adhesion.



Finishing the Graphic Edges

Usually, the area with the least adhesive bond is the outer few inches of the graphic. Always re-brush the edges in small circular movements before you consider the job done. Always grasp the film as far into graphic as possible without wrinkling the film to avoid transferring body oil and dirt to the adhesive, which can cause adhesion problems.

Selecting the Right Application Method

Read and follow all **General Instructions** before proceeding. Then select the **Application Method** (see below) that best matches the orientation of your graphic and printing method.

Graphic Orientation	Printing Method	Application Method
Vertical <i>graphics that are taller than they are wide</i>	All printing methods	Method 1 <i>see page 10</i>
Horizontal A with tape <i>graphics that are wider than they are tall</i>	All methods, but electrostatic only if using Trident transfer paper	Method 2 <i>see page 11</i>
Horizontal B without tape <i>graphics that are wider than they are tall</i>	All printing methods*	Method 3 <i>see page 12</i>

* If using 3M™ Wear Coat and Image Transfer Media 8604 ES or 8605 ES: Any tape applied to the imaged side of graphics made with this media may lift off the graphic's toner and wear coat when the tape is removed. Use only Application Method 1 or Method 3.

Graphic Cleaning, Maintenance and Removal

- Not all films are removable; refer to the base film's product bulletin for details.
- Even when you use a removable film, clean removal from any painted wallboard may be difficult. If the bond of the film to the paint is greater than the bond of the paint to the wallboard, the paint and possibly the paper covering on the wallboard could be damaged during graphic removal.
- Moisture that has penetrated wallboard will destroy the painted surface when graphics are removed. Remember that, especially in remodeling jobs, wallboard may have been placed over windows, cooling pipes, etc., that may produce moisture that is transferred to the wallboard.
- Removing wall graphics is significantly different than removing graphics from semi-trailers and vehicles.
- Using two hands, start at the top of the graphic and pull it down slowly at a 120 to 180 degree angle.
- Whenever large graphics are difficult to remove, cutting the graphic into strips may ease the removal process. Just be careful not to cut the substrate.
- Chemicals are not used for interior wall graphic removals. Chemicals may be used for some exterior graphic removals from concrete and painted metal structures. When chemicals are needed, refer to Instruction Bulletin 6.5.
- Heat may be helpful if the substrate is not wallboard. Heating a graphic eases removal of almost any film. The heat softens the adhesive, which reduces the pull-off force.
- If the substrate appears stained after graphic removal, it is usually the result of one of the following: poor quality paint, exposure to heat and light, migrating particles in the paint, and adhesive residue.

See Instruction Bulletin 6.5 for more details.

Disposal of Film Liners and Used Graphic Film

These products may be incinerated or may also be safely disposed of in a landfill per US Environmental Protection Agency guidelines.

Application Method 1

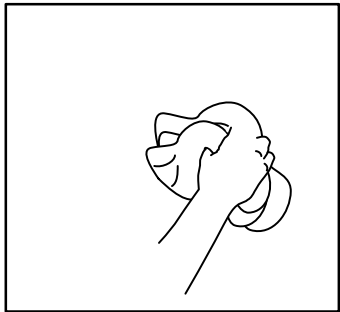
Orientation: Vertical (*graphic is taller than it is wide*)

Imaging Method: Screen printed, Electrostatically imaged, Offset printed

Please review the General Instructions and this Method before applying the film.

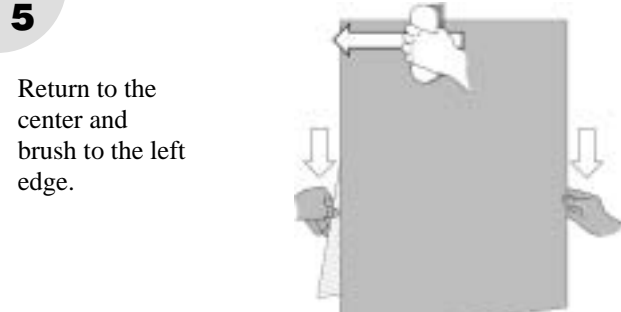
1

Wipe the wall, removing dust and any obvious contaminants.



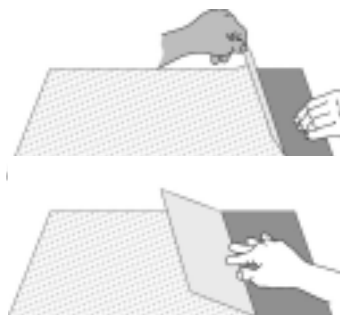
5

Return to the center and brush to the left edge.



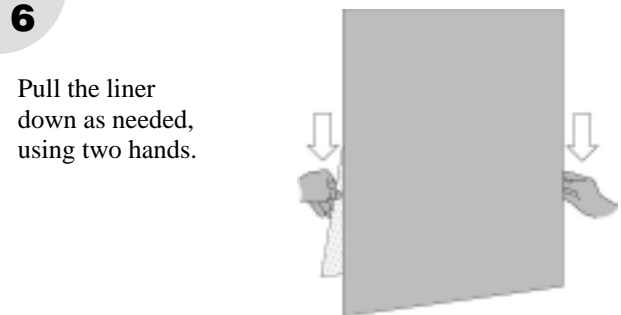
2

Lay the graphic image side down on a flat surface. Pull back about 6 inches of the liner. Sharply crease the liner.




6

Pull the liner down as needed, using two hands.



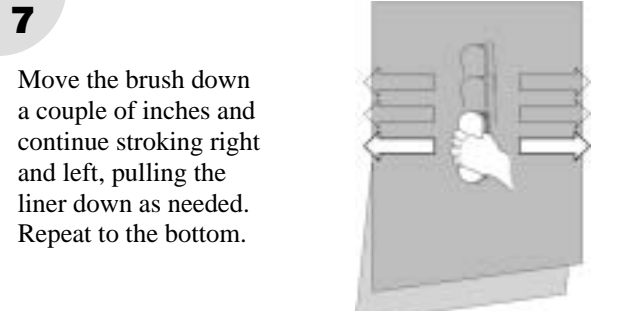
3

Align the graphic on the wall and use finger pressure to tack it in place.



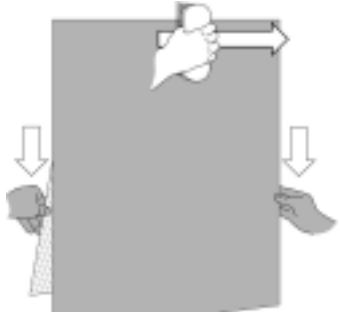
7

Move the brush down a couple of inches and continue stroking right and left, pulling the liner down as needed. Repeat to the bottom.



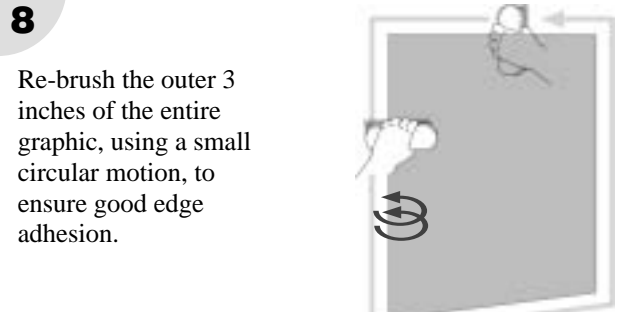
4

Brush from the center to the right edge.



8

Re-brush the outer 3 inches of the entire graphic, using a small circular motion, to ensure good edge adhesion.



Application Method 2

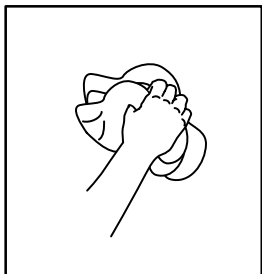
Orientation: Horizontal (*graphic is wider than it is tall*)

Imaging Method: Screen printed, Offset printed (*see Method 3 also*)

Please review the General Instructions and this Method before applying the film.

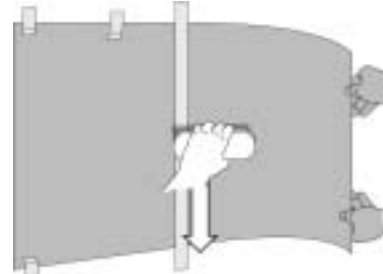
1

Wipe the wall, removing dust any obvious contaminants.



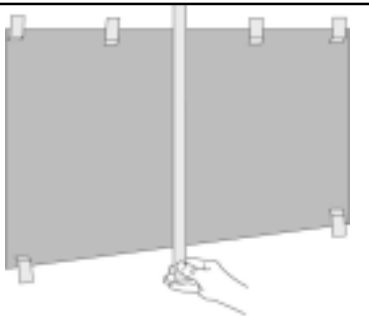
6

Return to the center, and brush down.



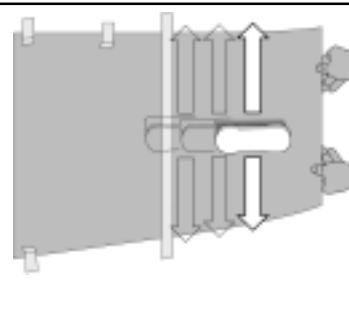
2

Align the graphic on the wall, and tape it in place as shown. Place a long strip of masking tape as shown.



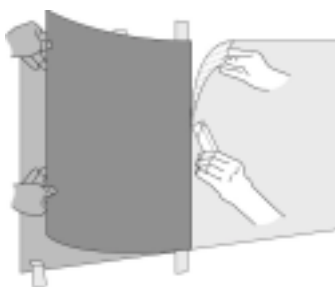
7

Move the brush about two inches left. Repeat Steps 6 and 7 across the graphic, allowing more of the graphic to lay against the wall as you work to the left.



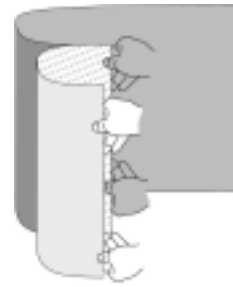
3

Remove the short strips of tape from one side. Pull the film away from the liner all the way to the long strip of tape. Carefully cut off the liner.



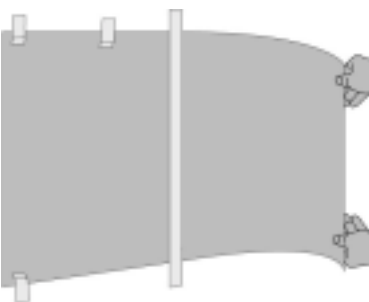
8

Remove the remaining masking tape. Lift the right side of the film and remove the remaining liner.



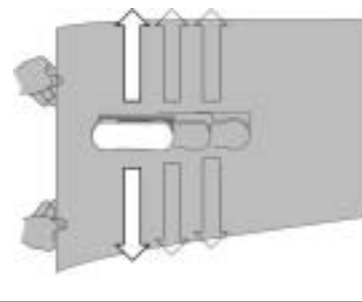
4

Allow the part of the graphic near the center tape to lie against the wall. Gently hold the rest of the graphic away from the wall.



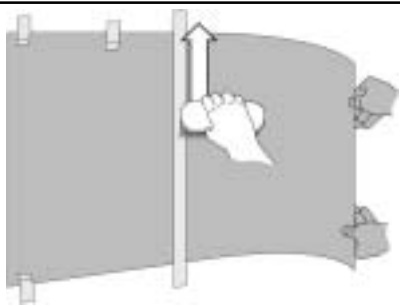
9

Repeat Steps 5, 6, and 7 across the other side of the graphic.



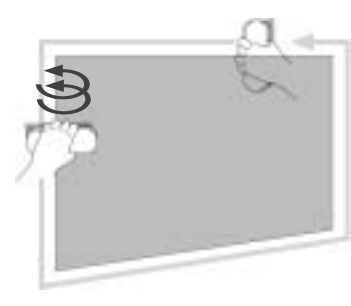
5

Begin at the center and brush up.



10

Re-brush the outer 3 inches of the entire graphic, using a small circular motion, to ensure good edge adhesion.



Application Method 3

Orientation: Horizontal (*graphic is wider than it is tall*)

Imaging Method: Screen printed, Offset printed (*see Method 3 also*); Electrostatically printed

This method, which uses no masking tape, is required if your graphic was made with wear coat and image transfer media 8604 ES or 8605 ES. The use of tape pulls off the toners and wear coat.

Please review the General Instructions and this Method before applying the film.

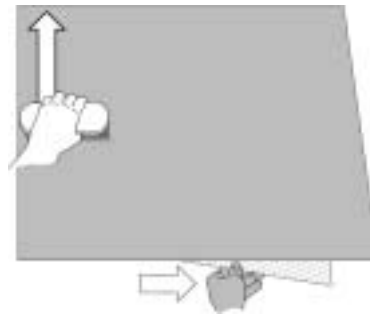
1

Wipe the wall, removing dust and any obvious contaminants.



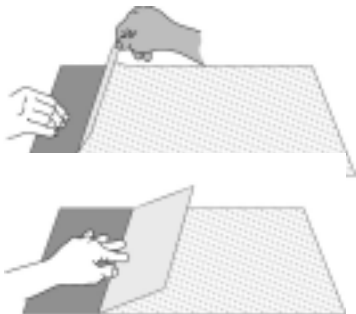
5

Return to the center and brush to the top edge.



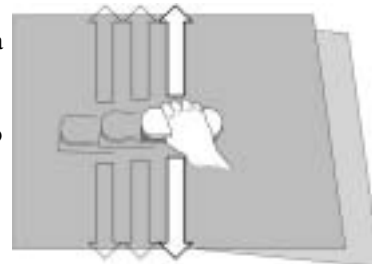
2

Lay the graphic image side down on a flat surface. Pull back about 6 inches of the liner. Sharply crease the liner.



6

Move the brush over a couple of inches and continue stroking center to top, center to bottom, as the helper pulls the liner away from the film.



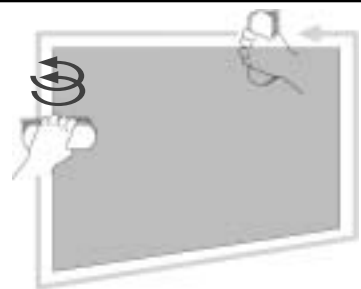
3

Bring the graphic to the wall and align it along the vertical edge. Use finger pressure to tack it in place. **DO NOT USE TAPE**



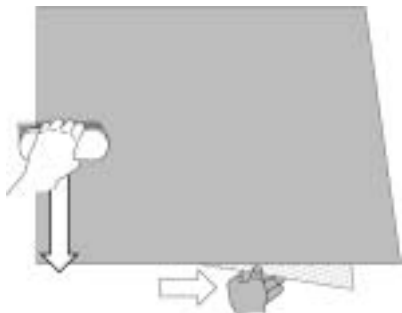
7

Re-brush the outer 3 inches of the entire graphic, using a small circular motion, to ensure good edge adhesion.



4

Brush from the center to the bottom edge.



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Storage, handling, maintenance, removal	6.5	8505

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Commercial Graphics Division

3M Center, Building 220-6W-06
PO Box 33220
St. Paul, MN 55133-3220 USA
General Info. 1-800-374-6772
Technical Info. 1-800-328-3908
Fax 1-651-736-4233

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3M Canada

P.O. Box 5757
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3M México, S.A. de C.V.

Av. Santa Fe No. 55
Col. Santa Fe, Del. Alvaro Obregón
México, D.F. 01210
52-55-52-70-04-00
Fax 52-55-52-70-22-77

3M Puerto Rico, Inc.

Puerto Rico Industrial Park
P.O. Box 100
Carolina, PR 00986-0100
787-620-3000
Fax 787-750-3035

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