



► Wall Graphics Overview

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OVERVIEW

This instruction bulletin provides guidance on ensuring optimal installation experience, as well as improving the longevity and reliability of wall graphics against premature failure. The objective of this bulletin is to identify and prepare for the most common wall conditions. Due to many different types of wall surfaces, environmental conditions and paint types, it is critical to understand the scope of the project prior to full-scale production and application. It is crucial that installers, shop managers, and salespeople be familiar with the proper handling, preparation, and testing procedures to ensure a successful and high-quality project.

Additional information related to the product and its recommended applications can also be found at arlon.com. Refer to the Arlon's Product Information Bulletin (PIB) for a better understanding of the product features, properties and recommended applications.

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TYPES OF WALLS AND TEXTURE



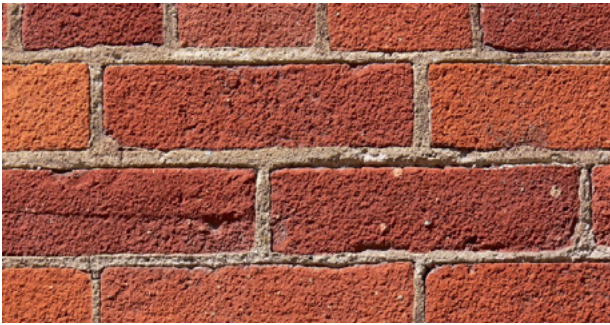
CONCRETE

A composite building material made from cement, water, aggregates (such as sand and gravel). Usually unpainted and texture usually range from smooth to medium high.



EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS)

A general class of non-load bearing building cladding systems that provides exterior walls with an insulated, water-resistant, finished surface in an integrated composite material system. Usually pre-fabricated and painted. May also contain migratory agents that will hinder proper adhesion. The texture level is usually medium to high.



BRICK

A building material composed of clay, concrete or other composite materials. Usually unpainted. The texture face of the brick is usually medium but the grout may vary from medium to extreme.



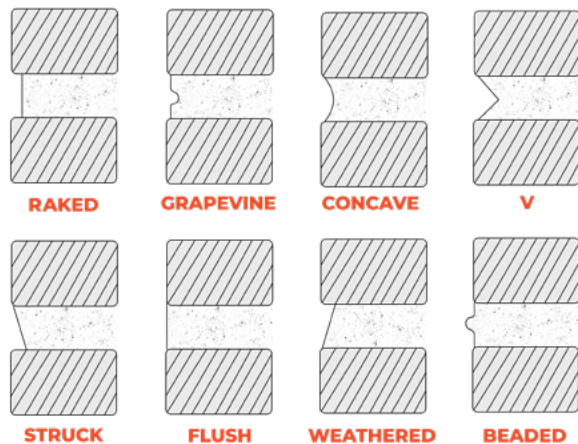
CINDERBLOCK OR CONCRETE MASONRY UNIT (CMU)

A usually hollow building block made with concrete. May be painted or unpainted. The texture face of the cinderblock is usually medium, but the grout may vary from medium to extreme.

GROUT OR MORTAR JOINTS

A concrete or composite product used to hold together building materials such as concrete blocks and brick.

Joints greatly vary in width, depth, profile, and texture. Cast films for textured walls work best if the grout lines are less than 1/8 in. (3.2 mm) deep. Conforming over excessive depth and texture, such as Raked, Weathered or Struck, will be more challenging and may not achieve the desired results. The Best Practice for excessively deep or protruding grout lines is to completely cut out the sections of the film that will fall into these areas.



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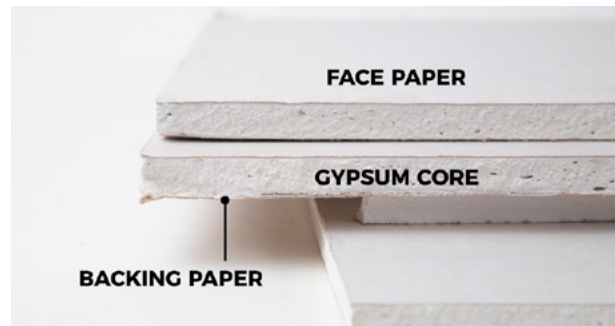
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GYPSUM BOARD (DRYWALL)

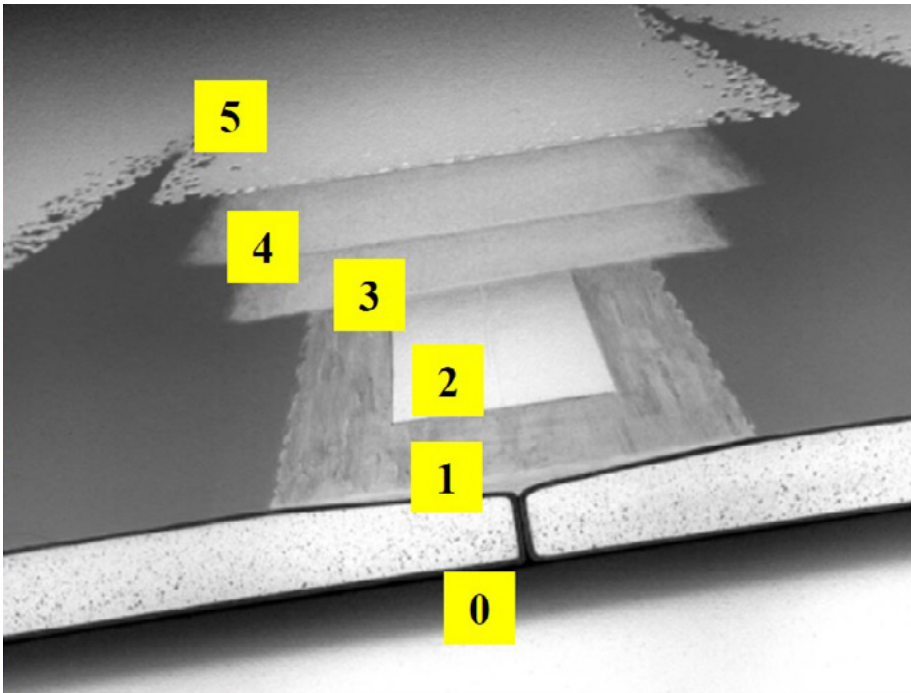
A type of board with paper on the outside and a core made from wood pulp or plaster. Drywall is the most common material for walls and ceilings, and is usually painted and/or primed. Texture will vary depending on the finish level and painting technique.



DRYWALL FINISH LEVELS (0-5)

Drywall can come in different finish levels (from Level 0 to Level 5) prior to painting.

Note: Arlon does not recommend applying graphics on unpainted drywall. The face paper may peel if the film is repositioned during installation. The joint compound and sanding dust will prevent the adhesive from working properly.



Video

What are the levels of Drywall finish?

By Design Build Remodeling Channel

Level 0 - No finishes or taping and is used for temporary construction.

Level 1 - Tape covers the joints without a joint compound over the tape.

Level 2 - Joint compound is applied over taped joints, interior angles, fastener heads and corner beads. It is also wiped with a joint knife leaving a thin coating of joint compound.

Level 3 - Everything from Level 2 and one additional coat of joint compound is over joints and interior angles. Fastener heads are covered with three separate coats of joint compound. All joint compounds should be smooth and free of tool marks and ridges.

Level 4 - Everything from Level 3 plus two separate coats of joint compound over all flat joints and a separate coat over the inside corners.

Level 5 - All the requirements of level 4 plus an additional thin skim coat of joint compound over the entire surface.

Source: <https://www.powellconstruction.com/blog/drywall-finishes/>

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STUCCO

A cement or plaster mixture that is applied manually or by machine to mostly outdoor walls. Stucco textures can range from light to heavy.

NOTE: Do not apply on textured walls with loose surfaces. The texture must be firmly anchored.



TILE

A kiln-dried, hard, and clay-based material and usually has grout lines. It can be indoor or outdoor, glazed or unglazed. Tiles are usually smooth but may also have a light texture from its surface pattern.



WALLPAPER OR VINYL WALLCOVERING

A thin to heavyweight film-type material for indoor walls. Texture can range from smooth to heavy. They may contain agents that migrate to the surface and can cause premature film adhesion failure.



WOOD

An organic, fibrous material that comes from trees and other woody plants. It can be hard wood or soft wood, plywood or strand/particle/fiber-board, coated and uncoated.



VARNISH, GLAZE OR OTHER SURFACE SEALANT

A product applied to a wall (usually an exterior wall) to provide color, gloss, protection, and/or cleanability. This sealer usually hinders adhesive performance.

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PAINTS AND SURFACE PRECAUTIONS

PAINTS AND SHEENS

Paints come in different gloss levels and the paint industry names seven levels.



FLAT

Flat/Matte

Gloss at 60°: <5
Sheen at 85°: <10

Flat paints have lowest gloss level. They help conceal surface imperfections better than other finishes and are ideal for walls that are rough or dented. However, the porous surface or matting agents used in these paints can negatively affect the ultimate adhesion of wall graphics leading to premature failure.



SATIN

Satin/Pearl/Velvet

Gloss at 60°: <10
Sheen at 85°: 10-35

Satin paints resemble flat paints when viewed head on but show a slight gloss when viewed at an angle. This slightly higher gloss provides for a more washable or scrubbable surface.



EGG SHELL

Eggshell

Gloss at 60°: 10-25
Sheen at 85°: 10-35

Eggshell paints are one step glossier than satin paints and tend to resist stains better than flat or satin paints, although not as well as semi-gloss and high gloss paints.



LOW GLOSS

Low-Gloss

Gloss at 60°: 20-35
Sheen at 85°: 35+

Low-gloss paints are similar to eggshell paints, but have a slightly higher gloss. They are a good choice for areas where some gloss is desired, but good cleaning properties are also necessary. Low-gloss paints and lower are not ideal for adhesion.

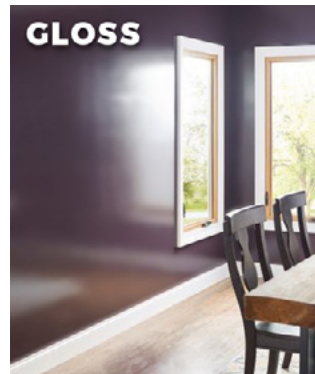


SEMI GLOSS

Semi-Gloss

Gloss at 60°: 35-70
Sheen at 85°: N/A

Semi-gloss paints have a slightly glossy appearance and are less reflective than gloss paints. They offer good stain resistance, are easy to clean, and are most often used in rooms requiring frequent scrubbing, such as kitchens and bathrooms. Semi-gloss surface provides a good surface for graphics application.



GLOSS

Gloss

Gloss at 60°: 70-85
Sheen at 85°: N/A

Gloss paints have a highly reflective appearance imparting a slick, contemporary look. They are tough, durable and stain-resistant. Gloss paints are easier to clean than lower gloss paints and are typically used in kitchens, bathrooms and on doors and cabinets exposed to fingerprints and grime. Gloss surface provides a better surface for graphics application.



HIGH GLOSS

High Gloss

Gloss at 60°: 85+
Sheen at 85°: N/A

High gloss paints have the highest reflective appearance. They are the toughest, most durable and most stain resistant of all finishes. High gloss paints are the easiest to clean and are typically used on doors and cabinets exposed to dirt and oil and can also be used for trim and some woodwork. High gloss surface provides the best surface for graphics application.

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PRECAUTIONS

- Consult or hire a professional painter to ensure best results.
- If applying film to a newly painted surface, follow all drying, and curing instructions found in the paint's data sheet prior to surface preparation and film application.
- Always refer to the paint manufacturer's instructions for actual curing time of the paint. The paint must be allowed to fully cure at room temperature and low relative humidity for a minimum of one week (7 days) prior to film application.
- No-VOC, Low-VOC, or Zero-VOC paints require longer curing times than regular VOC paints.
- Weathered or chalky surfaces must be refurbished.
- Primer and paint must be compatible: of the same base and paint manufacturer.
- Repositioning the film during application may peel paint especially if the wall has been repainted several times in the past.
- Oil alkyd primers and enamels are slow to dry and will adversely affect the adhesion of a film if not fully cured.

NOTE: Always perform a Media Compatibility Test prior to full-scale production and application.

CONDITIONS TO AVOID

- Avoid applying on paint with a flat to low-gloss finish. The de-glossing/matting agents in these paints can reduce film adhesion and cause premature failure.
- Avoid paints containing migratory agents or silicones, which may cause adhesion failure.
- Avoid paints marketed as easy clean, care-free, stain-resistant, anti-microbial, anti-mildew, etc. These features are designed to reject external agents that will come into contact with the paint, including adhesives.
- Avoid using thick wall films or repositionable adhesives on heavily textured paints. The adhesive will only come into contact with the "high spots" greatly reducing the graphic adhesion, which could cause graphics to fail prematurely.

SITE SURVEY FORM

It is critical that the graphic provider and end user determine suitability of performance prior to full-scale production and application. Due to the variety of base materials, paints, finish, and texture available for walls, a site survey is necessary to gather as much information related to the project.

Upon filling out the form, an Arlon representative will connect with you based on the contact information provided in the form. There may be more than one product recommendation based on the requirements and variables of the project. Some variables might also counteract each other and may require renegotiation with the end-user to set proper expectations.




Scan the QR Code

[or Click Here to Access the Architectural Site Survey Form](#)

TESTING THE WALL FOR MEDIA COMPATIBILITY

1. Print a test image using the printer for the actual job. Print at least a 2' x 2' size image with the same ink saturation as the real job. You should print samples of each possible media. Samples can be requested by an Arlon Sales Representative.
2. Allow the prints to outgas overnight. Apply laminate if needed.
3. The surface must be completely clean, in good condition, smooth, and dry before final preparation. Contaminants such as dust, dirt, grease, or defects on the substrate such as loose paint can cause adhesion loss and therefore reduce the durability and performance level of the graphic.
 - a. Remove loose dirt with a brush or dust off with a microfiber cloth.
 - b. For non-porous surfaces, spray 50% IPA/Water solution on a microfiber towel and wipe off any surface contaminants.



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c. Heavier contaminants such as grease may require a degreaser or industrial cleaner. "Rinse" the cleaner with a water-damp towel, immediately followed by a dry towel.

d. If possible and time-permitting, pressure washing a textured concrete wall could be the most effective method of surface decontamination. Make sure the wall is completely dry before applying the graphics.

4. Choose an inconspicuous area that is still representative of the wall.
 - To apply on a textured surface, soften the film with a heat gun, and immediately behind it, follow with an application roller slowly and carefully without blistering or whitening the film.
 - To apply on a smooth surface, apply the sample with a Teflon squeegee with a thick buffer or with a felt block squeegee.
5. If testing multiple products, label each sample clearly and take a photo for visual reference.
6. After dwelling at least overnight or 24 hours, observe for bubbling, edge lifting, curling, or loss of texture conformability. Any sign of edge curl or lifting indicates the product is not compatible.
7. For each sample that passes visual inspection, cut 3" of the print and peel it off the wall. If the sample takes effort to remove, the vinyl and surface are compatible. If time allows, come back 1 week later and cut off another 3 inches and check if the graphics remained on the wall or more paint is being removed.
8. Select the product that best meets the criteria and required performance of the job. Permanent projects should have a product with the highest bond, while removable graphics should have a bond that is acceptable without significant damage to the wall upon removal. However, removable films have a specified time frame of removability.

Video

WrapitRight Video

*Testing an Interior Wall
for Media Compatibility*

WrapitRight Video

*Testing an Exterior Wall
for Media Compatibility*

PRINTING AND PROCESSING

[Digital Printing Preprint Considerations \(#29\)](#)

[Digital Printing: On the Printer \(#30\)](#)

[Digital Printing: Graphic Protection \(#31\)](#)

[Outgassing and Installing Arlon Print Media \(#34\)](#)

PRINT PROFILES AND OUTGASSING

- Use the matching print profile to ensure color accuracy, print quality, proper curing settings, and efficient usage of inks and media. The profile automatically sets the ink limits to help ensure quality printing. Profiles are available from [Arlon's Profile Download Client](#)
- Images printed with solvent inks must thoroughly cure and outgas prior to contour cutting or overlaminating. It is recommended to let the solvent prints outgas at least overnight before lamination and/or contour cutting. This may vary depending on the total ink saturation and print room conditions.
- To allow for air flow and increased evacuation of solvents while outgassing, loosely unwind the roll and place on top of a rigid mesh surface or by hanging them.
- Highly saturated prints may experience edge curl (especially if the print was not outgassed sufficiently) because the solvent residue ultimately dilutes the adhesive. Leave an unprinted border of at least 1/8-inch for prints with heavy ink loads.

PRE-MASK/APPLICATION TAPE

Application tapes should be used for cut shapes and lettering. While full panel wall graphics do not require a premask/application tape. However, application tapes may have a greater adhesive bond to the film than the film has to the wall surface, especially if the wall is textured. If necessary, consider using a low tack tape to minimize the risk of peeling the graphics or paint layers when it is removed during application. Installers should secure the film to the wall surface before removing the application tape. Rework the entire graphic and all edges after removing the application tape.

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SURFACE PREPARATION

Good preparation is the key to any successful graphic application. Following what's outlined below can minimize issues and failures such as adhesion loss, reduced durability, and installation performance of the graphic. The best surface condition for wall graphics is glossy, smooth, properly primed, painted, and sufficiently cured wallboard that has little or no surface variation. However, the variables are always evolving so it is impossible to cover all options. It is the responsibility of the end-user/applicator to ensure all painted substrates have been processed and cured per the paint manufacturer's requirements. Failure to follow paint manufacturer requirements can lead to graphic failures and/or removal problems.

INSPECTION AND REPAIRS

Loose paint, physical damage, cracks, or inconsistencies on the surface are common situations for walls. It is important to repair any damage to like-new condition.

Consider hiring a professional painter to ensure the highest quality and consistency. A wall that is not properly repaired may result in poor graphic adhesion and/or additional wall damage during removal of the graphic. Any repairs must be primed, painted, and fully cured prior to graphics application.

NOTE: Use a primer and paint from the same manufacturer. However, Arlon does not endorse any particular paint manufacturer. Always fill out the [Site Survey Form](#) and perform a Media Compatibility Test prior to full-scale application.

Do not use matte paint or paint with silicone, graffiti-resistant or texturizing additives.

Do not apply graphics to any wall that does not have excellent paint to substrate bonding.

- Holes or incomplete patches must be completely patched, primed, and painted.
- Loose wallboard joints and seams must be repaired.
- Heavy paint texture may be smoothed down by sanding. Cast films are suitable for textured surfaces. Use a heat gun and foam roller to conform the film into the texture.
- Chipped, loose, flaking or peeling paint must be scraped, feathered, and sanded smooth.
- Swelling in certain areas may indicate sources of moisture such as plumbing behind the wallboard, cooling units, water fixtures, and overhead exterior windows.
- Use a degreaser or TSP solution (trisodium phosphate) per the manufacturer's directions for greasy surfaces. Make sure to use the appropriate cleaner for the type of contaminant, rinse by wiping with a damp towel, and let it dry thoroughly.
- Applying graphics over wallpaper is not recommended.
- Avoid detergents with lotions, waxes, or oils. Be aware some window cleaners have waxes.




NOTE: In the drying/curing process of the paint, certain gases are released. If a graphic is applied before the paint is allowed to fully cure, which will vary based on the environmental conditions, these gases will be trapped under the graphic and will cause lifting, air bubbles and premature failure.

TEXTURED EXTERIOR WALLS


- Use a stiff bristle brush and detergent and rinse with clean water. This will help remove any grease or exhaust contaminants on the wall.
- For hard-to-remove or caked-on contaminants, pressure washing may be necessary
- Dry the surface with clean, lint-free paper towels and then, let it thoroughly dry for at least 24 hours before graphics are applied.
- Use an electronic moisture meter to ensure that the wall is dry. Arlon recommends a maximum of 15% wall moisture level to ensure good paint adhesion.
- After the surface has dried, brush the surface before application to remove any dust or dirt that may have collected during the drying period. A compressed air or a battery-powered leaf blower may be beneficial in this process.

NOTE: Not using heat and a foam roller is insufficient for a proper application on heavy textured surfaces. Otherwise, the adhesive only has contact with the high points or "peaks" of the texture.



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STORING AND TRANSPORTING

- The graphics must be stored in a cool and dry environment. The release liner and the pre-mask or application tape is usually made from paper which will absorb moisture. This may lead to tunneling or waffling.
- Pre-masked graphics must be used immediately. The adhesion of the pre-mask or application tape may increase, making it more difficult to separate from print. Also, the graphic may curl off the liner, exposing the adhesive to the elements, and compromising its performance.
- To avoid tunneling, the graphics must be wound according to the natural tension introduced by the production process. This is especially important when the application tape or pre-mask is applied with a laminator.
- Smaller graphics must be stored flat. Rolled graphics should be secured with a tube in the middle to prevent it from collapsing even if stored on its side. Storing rolled graphics on its side for extended periods of time without a tube in the middle may cause tunneling and creases.

APPLICATION GUIDELINES

Always fill out a [Site Survey Form](#) and conduct a Media Compatibility Test for each configuration of a wall graphics project. If there are different types of walls, paints, and finishes, each of them must be taken into account to ensure the success of the project.

When conducting the Media Compatibility Test, use a small representative sample of the film with the same ink load and overlamine for the project. If the adhesion of the small sample does not meet expectations, full-scale installation of the wall graphic should not be attempted.

The type of wall, texture, and if painted, the adhesion between multiple coats of paint will affect the graphic's adhesion and removal. It is important to know the graphic film(s) provided and make sure that the film is appropriate for the project.

The graphics must be "dry apply" only. Do not use application fluid during installation, which may cause damage to the wall and lead to the graphics failing prematurely.

TEMPERATURE

Temperature directly impacts the adhesion performance of graphic films. Consult the Product Information Bulletin regarding the optimal application temperatures and required service conditions before and after application.

Higher temperatures will make the film softer and more pliable. However, heat also increases the adhesive's tack level and is prone to overstretching when repositioning or aligning panels. On the other hand, lower temperatures will slow down the drying of the wall, make the film more rigid, decrease its tack level, but also increase the likelihood of tearing or shattering.

For exterior wall projects, it is more critical to monitor the ambient temperature, humidity, and the wall's surface temperature.

GENERAL APPLICATION NOTES

- Check the artwork and labels for the printed graphics. Ensure that any obstruction on the wall is accounted for and no important elements in the graphic will be cut off.
- Always plan time in an installation to rework all edges of the film to help ensure good edge adhesion.
- Use the IR Thermometer to measure surface temperature of the wall. A portable digital thermometer that also displays the relative humidity is beneficial.
- Before starting the application, identify the "key panel" and use masking tape to "dry-fit" the graphics onto the wall.
 - The "Key Panel" is the starting panel which is usually the leftmost or rightmost panel. However, the key panel can be one of the middle panels depending on the design.
- Wipe the top, bottom, edges, inside and outside corners with a higher concentration (70% or higher) of isopropyl alcohol. Immediately follow with a dry microfiber towel.

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- In flat areas, an overlap seam of ½ to 1-inch is standard but 1-inch overlaps are preferred for both cast and calendered films. For inside corners, an overlap of up to ¼-inch is acceptable.
 - Once the panel is finished, wipe the edges with alcohol and immediately followed by a dry microfiber towel. This ensures maximum adhesion in the overlap/seams.
- Butt seams are not recommended. When the film shrinks, the original color of the wall will show.
- Use a jobsite laser and painter's tape to mark the location of the graphic on wall.
- Avoid touching the adhesive by the edges of the film. Oil and contaminants may be transferred from fingers to the adhesive which may reduce the effectiveness of the adhesive.
- Use two hands to peel the liner. Be careful of paper cuts from the edge of the film when peeling the liner.
- Use firm and overlapping strokes. Always squeegee from the center-out or evenly alternating from left-to-right and right-to-left to avoid shifting the graphics to one side.
- Use a heat gun and reapply pressure with a squeegee, glove, or foam roller, to secure the edges and overlaps.
- For films with a textured finish like canvas, overlaps may not fully adhere to the base panel. Consider using a high tack banner (double-sided) tape to add extra holding power for these seams.
- Graphics within hands reach along the outside corners and high traffic areas are susceptible to damage and abrasion. You can consider trimming back the graphics by 1/8 or 1/4-inch.

SUCCESS TIPS FOR TEXTURED WALLS




- If using a foam roller applicator, always direct the heat toward the film, NOT at the foam to avoid degrading the foam.
- Use the proper amount of heat. Insufficient heat during installation may produce immediate acceptable results but will lift or lose texture conformability in the next days or weeks.
- The proper speed allows the heat to soften the film and effectively conform it to the texture. Working too slow will result in burn marks, blisters, and hot spots. While working too quickly will result in poor adhesion and low texture conformability.
- Use firm, overlapping (50% to 75% overlap), and consistent pressure all the way through.
- Maintain a uniform pressure, speed, and heat during application, otherwise you may observe visual variation on the gloss level of the film.
 - A gloss overlaminate is the best finish to showcase the paint-like texture conformability of wall graphics. However, it will also highlight inconsistencies in the application. A satin or matte finish is more forgiving, but it will “flatten” the texture of the graphics.
 - Satin and matte overlaminates are both susceptible to “glossing” but it will be more pronounced with matte.
 - Satin and matte Calendered overlaminates are also more sensitive to “glossing” than cast.
- Use a narrower foam roller on grout lines. To minimize the risk of lifting due to overstretching, consider heating and rolling the horizontal grout lines first so that the film stretches over a bigger area of film.
- Occasionally pause the application and assess the applied film for inconsistencies due to speed, heat, pressure, or overlaps. Evaluate the applied section from a distance and look at it from different angles. Adjust techniques when necessary.

GRAPHIC REMOVAL




Removing a graphic always risk damage to the wall especially if the film has a permanent adhesive. Due to the variety of conditions with wall surfaces, Arlon cannot guarantee the speed and a damage-free removal. The amount of damage can be greatly reduced by following the inspection, cleaning and preparation guidelines provided in this bulletin.

NOTE: Arlon does not warrant damage to the wall surface caused by removing film, even if a removable adhesive was used.



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REMOVAL NOTES

- Not all films are designed to be removable. For best results, remove slowly. Start from the top and pull down at a 120-180 degree angle.
 - Score every 12-24" with a blade to cut it into strips. This may ease the removal but take care not to cut the surface underneath.
- Most graphics are easier to remove from a textured surface than a smooth surface since there is less adhesive contact.
- Clean removal from painted drywall may not be possible, even with a removable film. If the bond of the film to the paint is greater than the bond of the paint to the wall, the paint and face paper of the drywall could be damaged during graphic removal.
- If moisture has penetrated the drywall, it weakens the face paper and painted surface and will be damaged upon the removal of the graphics.
- Avoid using chemicals to remove graphics on interior walls.
- Use extreme caution when using heat to remove graphics applied on drywall.

FACTORS THAT AFFECT THE LIFE EXPECTANCY OF WALL GRAPHICS

- Improper installation will result in poor adhesion, edge lift or curl.
- Poor initial adhesion. Test prior to installation to ensure the film has sufficient adhesion to the surface.
- Graphics exposed to excessive moisture can trap water which will lead to loss of adhesion/lifting and mold growth.
- Recessed areas and grout lines may lift at higher temperatures. Loss of texture conformability may also be observed.
- Freeze/thaw cycles can accumulate moisture within porous surfaces and be trapped between the graphic and the wall. One indicator if the wall is susceptible to this is cracking and spalling. Therefore, the graphics may lift, peel, or crack as well.
- Removal of graphics (even removable films) may cause damage to the wall, paint, or wallcovering.
- The Expected Performance Life for Textured Surface Graphics ranges from 6 to 24 months outdoor when not used in freezing and thawing cycles. Performance is subject to the type of surfaces and its environmental conditions.

TROUBLESHOOTING COMMON FAILURE MODES WITH WALL GRAPHICS

Most failures are avoidable if proper expectations were set and agreed upon. However, when issues arise, they usually caused by one or a combination of the following:

- 1. Lack of due diligence and not using the Site Survey Form.** Not all walls are the same. A shop is taking a big risk by not identifying the variables that can affect the overall performance of the wall graphic film.
- 2. Not conducting the Media Compatibility Test or Incompatible paint or primer.** The Site Survey Form creates the project profile which then narrows down the products most suitable for the project. It also prompts to identify the paint on the wall and to conduct the Media Compatibility Test even for the product that was recommended based on the project profile. A highly conformable film can prematurely fail in a wall with moderate texture if the paint was formulated to reject external agents.
- 3. Incorrect print profile and/or insufficient outgassing.** The print profile sets the ink limits for a specific media, for that specific printer and ink configuration, and with that specific RIP software. This is even more critical with solvent printers. High amount of solvent residue weakens the film's ultimate adhesion despite its higher tack feel.
- 4. Poor technique or improper surface preparation.** Speed, heat, and pressure are the key factors for a successful graphic application on textured walls. And because interior walls are relatively flat and smooth, prepping and/or post-application of heat on the edges and overlaps are the most overlooked steps in the process.
- 5. Incorrect print media and/or overlaminates.** Only cast or premium non-PVC films can be successful in conforming to grout lines.

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ISSUES DURING INSTALLATION

Film does not conform to the grout

- Identify the grout type and measure its depth with a Tire Tread Gauge.
- Use a stiff bristle brush to knock off any loose debris and dust that are preventing the adhesive from functioning properly.
- If the grout has heavy texture or a severe profile, consider using a non-PVC wall film. Another option is to simply cut out the sections of the film that fall into the grout lines.

Film does not conform to the texture

- If the film is not sufficiently heated, it will not be pliable enough to conform to texture.
 - Use the highest setting for the heat gun and/or hold it closer to about 1 in. (2.5 cm) above the film.
 - Rolling too fast does not allow enough time to heat the film. Slow down a little.
 - Leverage may also affect the amount of application pressure. Get to a secure and stable stance and walk to the side incrementally to always keep the roller and heat in front of your chest.
- If the wall is too cold, it may act as a heat sink and prevent the film from reaching the desired application temperature. Consult the Product Information Bulletin for the optimal application temperature.

The next panel is lower than previous panel

- If the wall or ambient temperature is over 90F, the film could be stretching while removing the liner or due to its weight.
- Peel the liner in increments and keep the loose end supported instead of freely hanging.

Film blisters or forming hot spots

- The film was overheated by moving too slowly or the heat gun was too close to the film. Hold the heat gun at least 1-inch above the film and increase rolling speed.

Film pops up from grout lines

- If the grout lines are deeper than 1/8-inch, apply them first with a narrower foam roller before the faces of the cinder block or brick.
- If the grout lines are too sharp such as square-cut (raked) or undercut, consider using the Cut & Drop Method.
- Heat or rolling pressure was inadequate.




Film lifts over caulked lines


- It is not recommended to apply graphics over caulked lines, especially silicone caulking.
- The graphic needs to be trimmed back so it does not go over the caulking.
- If the caulk is tool-finished, consider using an adhesion promoter but the customer needs to be aware of the risks.

Large bubbles behind the film



- For painted walls with medium to light texture, air can be trapped behind the film during application.
 - Always look ahead of the application zone and use an air release tool if a bubble starts to form. Re-apply heat and re-roll the film.
- If the film was applied to an unsealed or unpainted masonry surface, rain, high humidity, or sprinkler systems may introduce moisture into the wall.
 - Use an electronic moisture meter to verify the moisture level of the wall prior to application.

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ISSUES AFTER INSTALLATION

Stripes or variation in gloss levels across the film

- Make sure to keep a uniform pressure, speed, and heat during application. Overlap each pass of the tool by at least 50%.




Film is lifting, popping, or losing texture conformability




- This can be an indicator of incompatible paint and media.
- Insufficient and/or uneven heating during application.
- For exterior walls applied during summer, the environment is too hot to allow the adhesive to dwell and hold its shape.
 - Install the film during the coolest part of the day. Check the substrate temperature with an IR gun.
- The texture may be too severe.
 - Unfinished brick, sprayed-on texture, slate panels, and split-face cinderblock are the most extreme yet common wall textures.
 - Wall graphics with a liquid laminate are more brittle. Removal can be very difficult and may require special services such as dry ice blasting.

A large portion of film lifts or falls off prematurely


- This is very likely due to incompatible paint and media.
- On walls adjacent to cooling systems, water pipes, or overhead windows, moisture may be present and compromising the wallboard and/or adhesive.

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