

Application and Maintenance of DI-NOC™ Exterior

This bulletin gives specific instructions of the application and maintenance of 3M™ DI-NOC™ Exterior Architectural Finishes Film. Please refer to the Product Bulletin for general information.

For the Best Results

- Read this bulletin thoroughly before starting the application. Applying a graphic is more than just adhering the film to the substrate.
- Apply the graphic only to one of the warranted application surfaces.
- Be sure the surface is completely dry before applying the graphic.
- Re-brush all edges to finish the graphic application.

Health and Safety

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, contact your local Technical Service person.

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

Application Surfaces

- Mainly aluminium
- Occasionally marble and glass

About Textured Exterior Surfaces

Some exterior surfaces are highly dimensional and the film adhesive may not have enough contact area to adhere properly to the surface. Contact your local 3M Commercial Graphics Technical Service person if you have a question about the suitability of any surface. See Figure 1

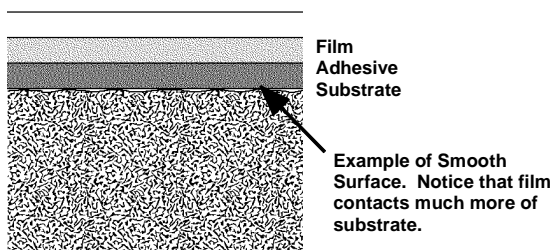
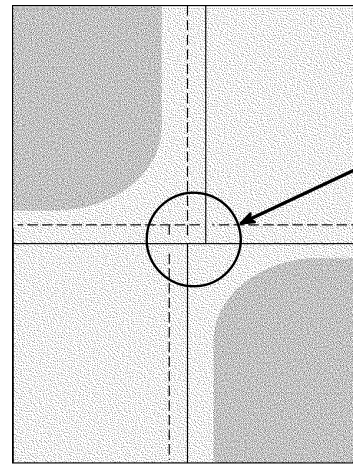


Figure 1. Examples of Film Contact on Rough and Smooth Surfaces



CG-35

Figure 2. Stagger Seams on Overlapped Panels

Condition of Surfaces

3M™ DI-NOC™ Exterior Architectural Finishes films will not stick properly to loose, crumbling, contaminated, wet or damp surfaces. Ensure that:

- The surface is secure and in good condition.
- The surface has good internal bond.
- The surface is clean.
- The surface is **completely dry**.
- Film can be applied at temperatures as low as 10°C (50°F) on days when the temperature is expected to rise to at least 21°C (70°F). Heat helps bond the adhesive; therefore, the warmer the temperature, the better the bond.

Note: Do not apply DI-NOC Exterior films late in the day when the surface temperature is likely to drop.

Surface Preparation

Important Note

The adhesive on DI-NOC Exterior films cannot adhere properly to wet or damp surfaces. Therefore, never use any wet application method to apply DI-NOC Exterior.

Clean all exterior surfaces prior to applying DI-NOC Exterior films with 3M Surface Preparation System.

1. Scrape off any grease or weeds found in expansion joints or other large particles from the application surface. Complete degreasing may not be possible.
2. Clean the surface with a broom or a brush to remove all loose particles, dust, sand and gravel.

Seaming

DI-NOC exterior films can be seamed, but it must have an overlap of at least 10 mm (3/8 inch). We recommend overlapping panels in the shortest direction, when possible.

Because of high wind speed, multiple layers of film can cause edge lifting problems. Make sure there are no more than three layers of film at any intersection. To do this, stagger seams, by at least 20 mm (3/4 inch). See Figure 2.

Note: Building must be inspected and the substrate is tested by 3M prior to any application recommendation. Information like kind of aluminum or coating is important for the performance of DI-NOC exterior film.

Graphic Application

Prior to application it is important to examine how to apply the DI-NOC Exterior films. Please check the following:

- How to access the panels? Scaffolding or Gondola?
- Surface treatment: How to remove dirt accumulation and clean?
- Time schedule: Which part to start first? How many applicators?
- Discuss with constructors: How many windows sash, panels, etc.
- DI-NOC Exterior film adhesive will not adhere to silicone or any type of sealers. Make sure sealer is removed prior to application.

Application method of DI-NOC Exterior films is the same as DI-NOC™ films.

General Application Technique

Use a blue 3M™ Applicator PA-1.

Use firm pressure and overlapping strokes.

Always stroke across the shortest, edge-to-edge distance.

Application Procedure

1. DI-NOC Exterior film is positional with Comply™ adhesive and does not require a premasking or prespacing tape.
2. Position DI-NOC Exterior on the clean surface.
 - Avoid aligning the edges of DI-NOC Exterior film on welded lines of aluminum.

- Do not smooth DI-NOC Exterior with your hands because this entraps air.

3. Peel back 20 cm of the liner to expose the adhesive. Carefully cut off that part of the liner while holding the DI-NOC Exterior away from the surface.
4. Make one stroke across the center of the graphic.
5. Continue stroking edge-to-edge across the shortest distance until that half of the graphic is applied.
6. Lift the other ends of the graphic and remove the remaining liner.
7. Continue stroking edge-to-edge across the shortest distance until that half of the graphic is applied.
8. Use 10 mm overlap.

Finishing the Application

The application is not finished until you re-squeegee the edges and the corners. This ensures a good edge seal.

Using the application, re-squeegee the outer 10 to 15 cm (4 to 6 inches) all around the graphic, using firm, overlapping strokes. This works the adhesive into the application surface to provide better bonding.

Note: DI-NOC Exterior films are very flexible and easy to apply. Application on radius such as around window frames or 90° angle is easy by using a heat gun. The maximum recommended temperature should not exceed 70°C to 80°C. Higher temperature will cause color change in film coat.

Cleaning Agent

For best adhesion use 3M™ Surface Preparation System.

Application Temperature

Minimum: 16°C

Maximum: 38°C

Preferred: 20°C – 25°C

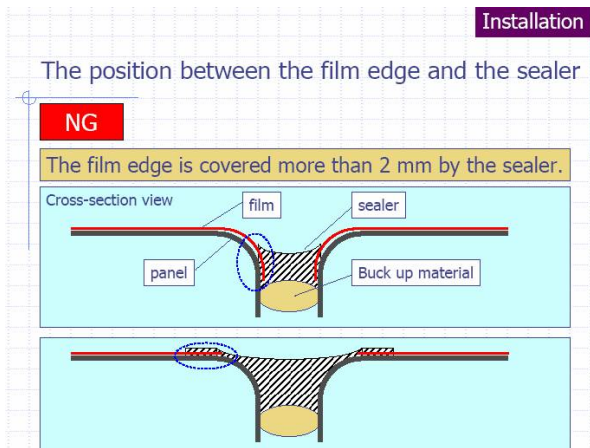
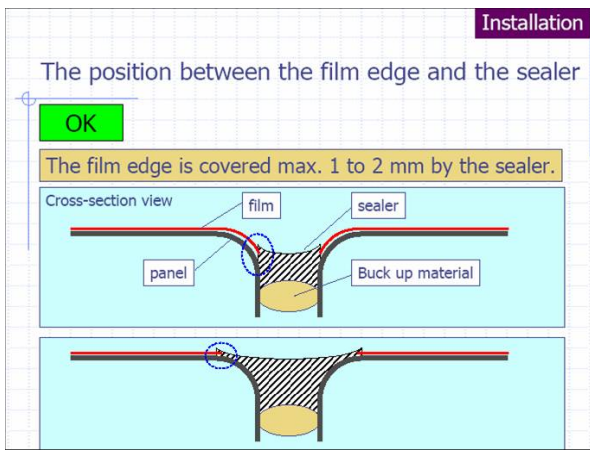
Primer

Primer may be necessary on low surface energy substrates or overlap. 3M recommends to use DP-900N or Scotchmount™ 4297 primer.

DI-NOC Exterior films are developed in general for vertical application, 90° angle horizontal is not recommended or warranted. However, on other types of radius DI-NOC Exterior can be applied.

Sealing

After DI-NOC Exterior film is applied check for critical edges. If necessary use a sealer or alternatively Scotchcal™ 3950 edge sealer.



After installation make final inspection of DI-NOC Exterior film and report to the constructor.

Maintenance and Cleaning

Before handling any chemical products, always read the container label and the MSDS.

- In industrial areas with heavy pollution DI-NOC Exterior film may pick up dirt. Annual cleaning is recommended.
- To clean the graphic, use a stiff, nylon-bristled brush or a light duty automatic cleaner and a cleaning agent such as normal household cleaner. Follow the manufacturer's instructions for use. Do not use any cleaning agent that contains solvents, which can erode the material. For best results and very easy cleaning, use a solution of 3M™ Film Cleaner and water.

Removal

1. Remove DI-NOC Exterior film by lifting one edge and pulling it off at a sharp angle - about 135 degrees - with smooth, even tension. Use a heat gun with 90°C temperature. A scraper, such as a putty knife, may be used to lift the edge, if needed.

Some adhesive residue may remain on typical outdoor surfaces. In that case use 3M™ Scotchcal™ R-231 adhesive remover.

2. It may also be helpful to cut the graphic into strips about 5 centimeters (2") wide and then pull off each strip. Use a razor blade with safety handle.

Storage Conditions

Store film in a clean, dry environment, free from direct sunlight and at an ambient temperature below 38°C. The combined shelf life as processed and unprocessed film cannot exceed 1 year from the date you receive the film. However, the film must be used within 1 year of purchase.

Important Notice

This bulletin provides technical information only. All questions of warranty and liability relating to this product are governed by the terms and conditions of the sale, subject, where applicable, to the prevailing law.

Before using, the user must determine the suitability of the product for its required or intended use, and the user assumes all risk and liability whatsoever in connection therewith.

3M Related Literature

Before starting any job, be sure you have the most recent product and instruction bulletins.

Refer to DI-NOC™ instruction bulletin.

The following bulletins provide the information you need to properly use the 3M products that may be used in your graphic. You can find these bulletins on our Web site at www.scotchprint.com.

For Further Assistance

For help on specific questions relating to 3M Commercial Graphics products, please contact your local 3M Technical Service person or contact:

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