



# DI-NOC™ Architectural Finishes

## Product Description

3M™ DI-NOC™ Architectural Finishes are durable, cleanable, flexible PVC films with 3M's Comply™ Adhesive air release channels for fast, easy and virtually bubble-free application. Use DI-NOC architectural finishes in place of or to enhance natural materials. These architectural finishes have excellent adhesion and flexibility, allowing them to be used indoors or outdoors on flat or complex curved substrates, walls, furniture, fixtures, etc. Some of the architectural finishes can also be applied to 3-dimensional surfaces and/or thermoformed. These products are ideal for both new construction and remodeling.

3M offers a Basic Product Warranty for these architectural finishes. Please see page 4 for additional details.

## Product Line

The current product line includes more than 500 unique designs and patterns categorized in 20 major pattern types.

The following symbols indicate special restrictions or considerations for some DI-NOC products. Please refer to the DI-NOC product catalog to determine which symbols are associated with the product you are applying.

-  Suitable for outdoor use as well as PVC (poly vinyl chloride) coated steel.
-  Suitable for outdoor use. Cannot be applied on PVC coated substrates. Film color will change over time as it is exposed to UV light.
- W** Film will shrink over time. Apply a substrate primer at all film overlaps. Do not use butt joints.
- !** Do not use on 3-dimensional surfaces or for thermoforming.

## Product Line

| Design Category | Product Series | General Product Description  |
|-----------------|----------------|--|
| Fine Wood       | FW             | Wood grain appearance and texture closely resembles authentic wood. Available in 73 different designs from 21 timber species.  |
| Wood Grain      | WG             | Wood grain appearance that creates a warm and elegant atmosphere. 120 different designs of 33 timber species, in light to dark colorations.  |
| Metallic Wood   | MW             | Wood grain look with a metallic finish. Use where a high quality, special look is needed. Available in 2 designs.  |
| Metallic        | VM / ME        | Colorful films with variations that include anodized and embossed appearance. Available in 30 designs.   |
| Hyper Metallic  | HM             | A high impact metallic finish. Available in 4 designs.   |
| Single Color    | PS             | Solid colors that have built-in bacteria resistance, making them suitable for hospital, clean rooms and food processing environments. Available in 90 soft and vivid color groups. |
| Carbon          | CA             | Woven carbon fiber patterns produced with 3M's micro-replication technology. Choose from 7 designs.  |
| Chic            | PA             | A soft textured metallic appearance. Available in 21 designs, most of which can be used outdoors.  |
| Sand            | PC             | An authentic sandstone appearance in modern colors and realistic pattern. Available in 13 designs.   |

| Design Category | Product Series         | General Product Description   |
|-----------------|------------------------|---|
| Stone           | ST                     | Simulates the appearance of real stone. For indoor use. Available in 11 designs.  |
| Terracotta      | FA                     | Simulating the appearance of kiln-fired ceramic tile, this product is suitable for 3-dimensional indoor applications. Available in 3 designs.   |
| Stucco          | SE                     | Simulates the appearance of Italian plaster. Available in 13 designs and 2 product variations: muted and vibrant shades.  |
| Leather         | LE                     | The look and feel of real leather. Suitable for 3-dimensional applications. Some can be used outdoors. Available in 25 designs.   |
| Weave           | FE                     | A woven-look design with an embossed pattern that is soft to the touch yet resists dirt and abrasion. Suitable for indoor applications on both flat and curved surfaces. Some can also be used in 3-dimensional applications. Available in 12 patterns. |
| Suede           | NX / VS                | Special textured pattern looks like suede. The VS version is stain resistant. For indoor use. Available in 4 designs.   |
| 21              | D 21                   | Geometric designs with a metallic base film. Available in 26 designs.   |
| Abstract Hard   | PG / LZ                | A semi-reflective quartz-like appearance. For indoor use. Available in 15 designs.  |
| Abstract Soft   | PT / PX / TX / FA / SE | A variety of soft tint designs in 5 different series, some of which can be used outdoors as well as indoors. Available in 26 designs.   |
| G-Emboss        | GE                     | Unique, contemporary geometric patterns in plain and metallic colors, which create an interesting effect when lit by indirect ambient lighting. Some can be used outdoors. Available in 8 designs.  |
| Protect Film    | DPF-100                | A glossy transparent overlaminates that provides additional scratch and damage protection to the DI-NOC base architectural finishes.  |

## Physical Characteristics

| Characteristic          | Description  |
|-------------------------|--|
| Material                | Vinyl  |
| Color                   | See the website at <a href="http://www.3Mgraphics.com">www.3Mgraphics.com</a> or contact your 3M sales representative  |
| Thickness with adhesive | 8.5 mils (0.212 mm) <i>typical</i>   |
| Adhesive type           | Pressure sensitive with air release channels; good hiding power on many of the products  |
| Liner                   | Polyethylene coated paper  |
| Chemical resistance     | Resists mild alkalis, mild acids and salt<br>Resists many stains for up to 18 hours<br>Excellent resistance to water ( <i>this does not include immersion</i> )  |
| Flammability            | <b>Building Indoor Wall/Ceiling Applications</b><br>All DI-NOC architectural finishes achieved the National Fire Protection Association Class AI level as defined in NFPA 101 "Life Safety Code" Test Method ASTM E84. |

## Application Characteristics

| Characteristic   | Description  |                       |         |                            |         |
|--|--|-----------------------|---------|----------------------------|---------|
| Application temperature  | 60°-100°F (15° -38° C)                                 |                       |         |                            |         |
| Application method   | Dry only   |                       |         |                            |         |
| Graphic removal  | May be removed with heat; substrate damage is possible |                       |         |                            |         |
| Adhesion<br><br>24 hours after application<br><br>* Indicates material damage was observed during testing. |  | <b>Test</b>           |         |                            |         |
|  |  | <b>Without Primer</b> |         | <b>With Primer DP-900N</b> |         |
|  |  | lbs/1 inch            | N/25 mm | lbs/1 inch                 | N/25 mm |
|  | Material   |                       |         |                            |         |
|  | Luan veneer  | 1.1                   | 4.9     | 7.71                       | 34.3    |
|  | China veneer   | 1.1                   | 4.9     | 6.8                        | 30.4    |
|  | Plaster board  | n/a                   | n/a     | 1.1*                       | 4.9*    |
|  | Asbestos slate board                                   | 1.1                   | 4.9     | 7.7                        | 34.3    |
|  | Melamine-baked steel sheet                             | 6.8                   | 30.4    | 11.7                       | 52      |
|  | Phosphate-coated steel sheet                           | 5.5                   | 24.5    | 12.1                       | 54      |
|  | PVC-coated steel sheet                                 | 9.9                   | 44.1    | 9.9                        | 44.1    |
|  | Aluminum   | 6.1                   | 27.1    | 8.7                        | 39      |
|  | Stainless steel sheet                                  | 8.3                   | 37.2    | 9.4                        | 42      |
| Acrylic board  | 8.6  | 38.2                  | 12.3    | 54.9                       |         |
| Mortar   | 0.9  | 3.9                   | 4.9     | 21.6                       |         |

## Recommended Substrates

| KEY  | VM<br>ME<br>PA<br>WG-GN<br>MW<br>HM | CA<br>D21 Series<br>GE-923<br>GE-924<br>GE-443<br>GE-444 | All Other |
|--|-------------------------------------|--|-----------|
| ● = Good adhesion<br>○ = Good adhesion but poor appearance |                                     |  |           |
| <b>Wood Substrate</b>                                      |                                     |  |           |
| Veneer wood  |                                     | ○  | ●         |
| Particle board   |                                     | ○  | ●         |
| MDF  |                                     | ○  | ●         |
| <b>Board Substrate</b>                                     |                                     |  |           |
| Plaster board  |                                     | ○  | ●         |
| Volcanic silicate material composite board                 |                                     | ○  | ●         |
| Silicate calcium board                                     |                                     | ○  | ●         |
| UV-coated silicate calcium                                 |                                     | ●  | ●         |
| <b>Mortar Substrate</b>                                    |                                     |  |           |
| Mortar   |                                     | ○  | ●         |
| <b>Stone Substrate</b>                                     |                                     |  |           |
| Artificial marble  |                                     | ●  | ●         |

Continued on the next page.

Recommended Substrates, continued

| KEY                                   | VM<br>ME<br>PA<br>WG-GN<br>MW<br>HM | CA<br>D21 Series<br>GE-923<br>GE-924<br>GE-443<br>GE-444 | All Other |
|---------------------------------------|-------------------------------------|--|-----------|
| ● = Good adhesion                     |                                     |  |           |
| ○ = Good adhesion but poor appearance |                                     |  |           |
| <b>Metal Substrate</b>                |                                     |  |           |
| Baked enamel painted steel plate      |                                     | ●  | ●         |
| Galvanized steel plate                |                                     | ●  | ●         |
| PVC-coated steel plate                |                                     | ○  | ●         |
| Aluminum                              |                                     | ●  | ●         |
| Stainless                             |                                     | ●  | ●         |
| <b>Overlay Substrate</b>              |                                     |  |           |
| Overlay on DI-NOC film                |                                     | ○  | ●         |
| <b>Decorated Board Substrate</b>      |                                     |  |           |
| HPL                                   |                                     | ●  | ●         |
| LPL                                   |                                     | ●  | ●         |
| <b>Glass Substrate</b>                |                                     |  |           |
| Glass                                 |                                     | ●  | ●         |
| <b>Plastic Substrate</b>              |                                     |  |           |
| Acrylic board                         |                                     | ●  | ●         |
| ABS                                   |                                     | ●  | ●         |
| Rigid PVC                             |                                     | ●  | ●         |

**Substrates Not Recommended**

DI-NOC architectural finishes do not have acceptable adhesion to the following substrates:

- Wood: unseasoned
- Plastic: soft PVC, polycarbonate, polyethylene, polypropylene, nylon, fluoroplastic, rubber sealing
- Metal: copper, brass, lead, tin

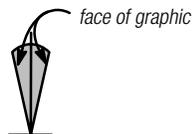
**Graphic Performance Life**

This product is covered by the 3M Basic Product Warranty, which warrants that if this product has any physical product or manufacturing defects that 3M's sole liability under the terms of the Warranty is replacement or credit for the returned, unused material. There is no finished or applied graphic warranty nor warranted durability.

However, thorough testing and use of this product throughout the world for many years indicates that it is highly durable when used in vertical installations as described in the applicable 3M Product and Instruction Bulletins.

**3M™ MCS™ Warranty**  
Durability for Finished Graphics

**Vertical Exposure**



The face of the graphic is ± 10° from vertical.

**Expected Durability, Vertical Application**

*in years*

|  | U.S. | U.S. Desert Southwest |
|--|------|-----------------------|
| Outdoors for architectural finishes having the sun symbol            | 4    | 3                     |
| Indoors, no direct UV light exposure, with or without the sun symbol | 12   | 12                    |
| <i>If exposed to direct UV light, expect a shorter durability</i>    |      |                       |

## Exceptions and Limitations

- Horizontal indoor wall decoration with no direct UV light exposure is a satisfactory application but no expected durability has been determined.
- Horizontal indoor counters and ledges that are exposed to abrasion results in premature wear or damage. Applying 3M™ DI-NOC™ Protection Film DPF 100 provides reasonable resistance to abrasion and soil, but also changes the gloss and may change the appearance of the DI-NOC film over which it is applied.
- Horizontal outdoor decoration is not recommended. Exposure to maximum sunlight and environmental conditions can cause color change, loss of gloss, chalking and premature failure.

## Screen Printing and Clear Coating

This film can be screen printed with 3M™ Screen Printing Ink Series 1900 and cleared with 3M™ Screen Print Gloss Clear 1920DR but the results may not meet your needs or expectations. We recommend testing and approving each type of film before specifying it in a job.

## Substrate Preparation

Refer to Instruction Bulletin 5.41.

## Substrate Primer

Primer is required at any overlap, at the end/edge of the film--such as under a butt joint--and wherever the material is stretched--such as a sharp radius. It is also recommended if the surface energy of the substrate is low. Additional details are provided in Instruction Bulletin 5.41.

A primer is usually not needed on flat surfaces or high energy substrates such as metal or paint.

| Primer                                 | Substrate  |
|--|--|
| DP-900N<br>Solvent based               | Gypsum board<br>Calcium silicate (with sealer coating)<br>Plywood<br>MDF board<br>Painted or coated metals<br>Films (including DI-NOC architectural finishes)<br>PVC laminated steel<br>Mortar (with sealer coating)<br>Painted or coated metals |
| WP-2000<br>Water based                 | Gypsum board<br>Calcium Silicate (with sealer coating)<br>Plywood  |
| EC-1368NT<br>Solvent-Based<br>Adhesive | Gypsum board<br>Calcium silicate (with sealer coating)<br>Plywood<br>MDF board<br>Aluminum<br>Stainless steel<br>Painted or coated metals  |

## Cleaning Applied Film Removal

Use a clean, soft cloth with detergent and water. Hot water may be required for heavier soil.

Although DI-NOC architectural finishes may be removable, the application techniques and the recommended substrate primers increase adhesion so that clean removal without substantial substrate damage is unlikely. The better alternative is to apply new film or surface covering over the DI-NOC film. 3M does offer some basic guidelines if you wish to attempt removal. Refer to Instruction Bulletin 5.41.

## Shelf Life, Storage and Shipping

### Shelf Life

**Total shelf life: 2 years**

Up to 2 years unprocessed, **OR** process within 1 year **and** apply within 1 year of processing

## Storage Conditions

- 95°F (35°C) maximum
- Out of sunlight
- Clean dry area
- Original container
- Do not stack boxes over six (6) units high. Excessive weight can damage the film.
- Bring the film to print room temperature before using

## Warranty and Limited Remedy

The following is made in lieu of all other express or implied warranties, including any implied warranty of **merchantability** or fitness for a particular purpose or implied warranty arising out of a course of dealing, custom or usage of trade: all 3M products are warranted to be free of defects in materials and manufacture at the time of shipment and to meet the specifications stated in this Product Bulletin. 3M will replace or refund the price of any 3M materials that do not meet this warranty within the specified time periods. These remedies are exclusive. **In no case shall 3M be liable for any direct, indirect, or consequential damages, including any labor or non-3M materials charges.**

See the Graphics Market Center Warranty Brochure, which gives the terms, additional limitations of the warranty, if any, and limitations of liability.

Corrected maximum temperature for Application from 82°F to 100°F. DI-NOC floor film has been discontinued.

## Bulletin Change Summary

## 3M Related Literature

Before starting any job, be sure you have the most current Product and Instruction Bulletins.

The information in 3M Product and Instruction Bulletins is subject to change. Current Bulletins are available at [3Mgraphics.com](http://3Mgraphics.com). The techniques described in these Bulletins are required when applying a 3M warranted graphic, but are also practical recommendations when using promotional materials for non-warranted graphics. Additional Bulletins may be needed as indicated in the 3M Related Literature section of other 3M components you use.

Bulletin types: PB = Product Bulletin; PB-IB = Product & Instruction Bulletin; IB = Instruction Bulletin

| Subject  | Type  | Bulletin No. |
|--|---|--------------|
| Application of 3M™ DI-NOC™ Architectural Finishes; a guide for indoor and outdoor dry applications | IB  | 5.41         |
| 3M Graphics Center Warranty Brochure   | go to <a href="http://www.3Mgraphics.com">www.3Mgraphics.com</a> , Warranties |              |



**Commercial Graphics Division**  
3M Center, Building 220-12E-04  
PO Box 33220  
St. Paul, MN 55144-3220 USA  
General Info. 1-800-374-6772  
Technical Info. 1-800-328-3908  
Fax 1-651-736-4233

[www.3Mgraphics.com](http://www.3Mgraphics.com)

**3M Canada**  
P.O. Box 5757  
London, Ontario  
Canada N6A 4T1  
1-800-265-1840  
Fax 519-452-6245

**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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