

# **Product Description**

3M™ DI-NOC™ Architectural Finishes are decorative surface finishes available in 700+ designs. 3M DI-NOC designs offer the warmth of wood grain, sleek feel of metal, cool of natural stone and hundreds of other designs.



3M DI-NOC Architectural Finishes are flexible finish films, able to contour to most surfaces.

#### **Featured Benefits of DI-NOC Architectural Finishes**

- Applications Ideal for casework, doors, columns, walls and more.
- Application Surfaces Use on metal, wood, glass and more.
- Aesthetics Resemble natural materials and other types of surfaces to deliver the look you want.
- Remodel and Reuse Goes up fast, with less likelihood of error and waste, and brings life
  to existing assets. The architectural finishes convert wood or metallic spaces to reflect an
  entirely new design with abstract or colored finishes.
- Easy Application 3M<sup>TM</sup> Comply<sup>TM</sup>
  Adhesive technology virtually
  eliminates bubbles, simplifying and
  speeding application. It also bonds
  powerfully to many substrates.
- Expected Performance Life is 12 years for indoor, vertical applications with no direct UV exposure.

Patterns FW-7017, FW-522 and MW-1074 are used in the retail setting above.

### **Product Characteristics**

The values in these tables are typical, and are based on test data deemed reliable but are not warranted.

Characteristic		Value		
Film		Vinyl (most finishes)		
Material	Adhesive	Pressure-sensitive acrylic, permanent		
	Release Liner	Silicone-coated poly paper		
Thickness	Film + Adhesive	8 mils (200 microns) nominal, not including release liner Some designs vary slightly in thickness due to embossing		
	Release Liner	6.2 mils (157 microns)		
	Standard DI-NOC	48 in. X 164 ft. (1,220 mm x 50 m)		
Roll Size	WG-GN, VM	48 in. x 82 ft. (1220 mm x 25 m)		
	Wa-aw, WW	48 in. x 39.4 ft. (1220 mm x 12 m)		
Weight		55 lb. (25 kg) (approx.) for a 164 ft. (50 m) roll		



# **Product Performance**

The values in these tables are typical, and are based on test data deemed reliable but are not warranted.

Characteristic	Evaluation	Results
Dimensional Stability*	4 in. x 4 in. (100mm x 100mm) crosscut in film, after 2 days at room temperature.	Largest gap: < 0.01 in. (0.3mm)
Heat Resistance*	Aged at 150°F (65°C) for 28 days.	No delamination or visible change
Thermal Cycle Resistance*	Cycled between -22°F and 150°F (-30°C and 65°C) for 12 days.	No delamination or visible change
Moisture Resistance*	Aged at 113°F (45°C), 95% humidity for 30 days.	No delamination or visible change
Cold Impact Resistance*	2 lb. (907g) weight dropped from 5 in. (12.7cm) height, at 32°F (0°C) using a Gardner Impact Tester.	No cracks in film
Weatherability	Exposed to carbon arc accelerated weathering for 250 hours	No visible change
Abrasion Resistance	Taber® CS-17 Abrasion wheel: 1 Kg loading weight, 7,000 cycles	No wear-through of surface finish
Fire Resistance	When used in Interior Applications as defined by NFPA 101 "Life Safety Code", Test Method ASTM E84	Most Products have Class A
Industry-Specific Testing	International Maritime Organization certification, Intertek Firedoor, USCG,	

<sup>\*</sup> Product applied to an aluminum plate

# **Stain Resistance**

Contaminant was in contact with the film surface for 24 hours and then removed using water or mild detergent. Results may vary.

Contaminant	Results
Coffee	•
Tea	0
Cola	•
Milk	•
Red Wine	•
Ketchup	•
Soy Sauce	•
Cooking Oil	•
Vinegar	•
Mustard	•
Crayon	0
Shoe Polish	•
Betadine iodine	•
Soap solution (1%)	•
Ammonia Solution (10%)	•
Citrate Solution (10%)	•
Ethyl Alcohol (50%)	•

- Removed with water
- O Removed with mild detergent
- A little stain remained

# **Product Performance (continued)**

# Resistance to Solvents, Cleaners, and other Chemicals

Film was applied to an aluminum plate, left for 72 hours, then immersed in the following chemicals:

Classification	Solvent	Immersion Time	Result
Water	Water	24 hours	No visible change
Asid	Chloride (10%)	24 hours	No visible change
Acid	Hydrogen Peroxide	72 hours	No visible change
Base (Alkali)	Sodium Hydroxide (10%)	24 hours	No visible change
Alashal	Ethanol	24 hours	No visible change
Alcohol	Isopropyl Alcohol	72 hours	No visible change
Ester	Ethyl Acetate	5 minutes	Deterioration observed
Vatana	Methyl Ethyl Ketone	5 minutes	Deterioration observed
Ketone	Acetone	72 hours	Deterioration observed
Aromatic	Toluene	5 minutes	Deterioration observed
	2 in 1 Carbona <sup>®</sup> cleaner	72 hours	No visible change
	Accel <sup>®</sup> TB Disinfecting wipes	72 hours	No visible change
	Guardsman <sup>®</sup> AFTA	72 hours	No visible change
	Asepticare™ TB+II	72 hours	No visible change
	Birex <sup>®</sup> Disinfectant	72 hours	No visible change
	Bleach-Rite <sup>®</sup> Disinfectant	72 hours	No visible change
	Caltech Precise <sup>®</sup> hospital cleaner	72 hours	No visible change
	CaviWipes™	72 hours	No visible change
	Cidex <sup>®</sup> OPA	72 hours	No visible change
	Citrace <sup>®</sup> Germicide	72 hours	No visible change
	Citrace <sup>®</sup> II hospital germicidal deodorizing cleaner	72 hours	No visible change
	Clorox <sup>®</sup> Bleach - 50% bleach/50% water	72 hours	No visible change
Claanara	Clorox <sup>®</sup> Broad Spectrum Quaternary Disinfectant	72 hours	No visible change
Cleaners, Disinfectants &	Clorox <sup>®</sup> germicidal bleach spray with bleach	72 hours	No visible change
other Chemicals	Discide <sup>®</sup> Ultra disinfectant spray	72 hours	No visible change
	Ecolab <sup>®</sup> TB disinfectant cleaner	72 hours	No visible change
	Envirocide <sup>®</sup> Disinfectant decontaminating cleaner	72 hours	No visible change
	Fade-A-Dyne <sup>®</sup> blood remover	72 hours	No visible change
	Fantastik <sup>®</sup> Spray Cleaner	72 hours	No visible change
	Formula 409 <sup>®</sup>	72 hours	No visible change
	Harvard Chemical 625® hospital grade neutral disinfectant	72 hours	No visible change
	Healthlink Citriguard® II Hard Surface Cleaner	72 hours	No visible change
	Husky <sup>®</sup> 891	72 hours	No visible change
	K2R <sup>®</sup>	72 hours	No visible change
	Lysol®	72 hours	No visible change
	Microquant <sup>®</sup> Quanternary detergent disinfectant - Ecolab	72 hours	No visible change
	Misty disinfectant & deodorant	72 hours	No visible change

# **Product Performance (continued)**

# Resistance to Solvents, Cleaners, and other Chemicals (continued)

Classification	Solvent	Immersion Time	Result
	Oxivir <sup>®</sup> TB - Diversey	72 hours	No visible change
	Oxivir <sup>®</sup> TB Wipes - Diversey	72 hours	No visible change
	Oxivir® TB ready to use wipes - Diversey	72 hours	No visible change
	QD-64 <sup>®</sup> lemon Disinfectant - Quest	72 hours	No visible change
	3M™ Quat Disinfectant #5 - 3M	72 hours	No visible change
	Quest 256 <sup>®</sup> Neutral Disinfectant - Butchers	72 hours	No visible change
	Resolve <sup>®</sup> Spot & Stain cleaner	72 hours	No visible change
	SaniZide Plus <sup>®</sup> germicidal solution	72 hours	No visible change
Cleaners,	SaniZide Plus <sup>®</sup> germicidal wipes	72 hours	No visible change
Disinfectants &	3M™ Sharpshooter™ - 3M	72 hours	No visible change
other Chemicals	Simply Green <sup>®</sup>	72 hours	No visible change
	Spartan <sup>®</sup> Clean by Peroxy <sup>®</sup>	72 hours	No visible change
	Spartan <sup>®</sup> Green Solutions <sup>®</sup> Neutral Disinfectant cleaner	72 hours	No visible change
	Spray Nine <sup>®</sup>	72 hours	No visible change
	Tide™ Powder Detergent	72 hours	No visible change
	TechniSat® TX1067 (70/30 IPA)	72 hours	No visible change
	Ivory <sup>®</sup> Ultra	72 hours	No visible change
	Virex <sup>®</sup> 256 cleaner	72 hours	No visible change
	Virox <sup>®</sup>	72 hours	No visible change

# **Product Use**

The user is solely responsible for evaluating and determining whether these 3M Products are suitable and appropriate for any particular use or manufacturing process in which they may be used.

# Consider These Factors in Determining the Suitability of the Product

Be sure you understand the unique characteristics of these Products and consider them in determining whether the Product is suitable for your use. Please refer to the 3M<sup>TM</sup> DI-NOC<sup>TM</sup> Installation Guide for additional information.

1.	Substrate texture affects Product adhesion and application ease.
	☐ Unless the substrate is very smooth, its texture may be visible through the Product.
	☐ Compounds used to smooth a textured substrate permanently change that substrate.
	☐ Product removal may damage the substrate or its finish.
2.	Application surface conditions affect Product adhesion.
	☐ Ensure that the existing paint, surface finish, or wall covering has excellent bond to the substrate area where the Product will be applied.
	☐ Repair, prime and paint the substrate, as needed.
	☐ An adhesion promoter may be required to increase Product adhesion.
3.	Human and environmental conditions
	☐ Temperature and humidity in recommended range
	□ Direct UV light (sunlight)
	☐ Heating or cooling ducts in close proximity.
	☐ Unsealed substrates in front of water sources.
	☐ People or equipment that will be in contact with the Product.
4.	The Product may contain a splice. The location of the splices is marked with a tab along the edge of the Product. The installer will need to determine the impact of the splice and work around it to make the best use of the material layout.

# **Application and Removal Guidelines**

The values in these tables are typical, and are based on test data deemed reliable but are not warranted. See the 3M<sup>™</sup> DI-NOC<sup>™</sup> Installation Guide for additional information.

Characteristic	Value
Application Surface Type	Smooth, hard, non-porous (sealed) material
Application Location	Interior
Application Temperature	60°F - 100°F (10°C - 38°C) air and application surface
Application Method	Dry application
High Humidity Environments	Products are not recommended for Interior Applications where condensation consistently occurs.
Product Removal	Heat at 176°-212°F (80°-100°C)

### **Adhesion Compatibility with Application Surfaces**

The following table contains peel adhesion information for the Product peeled from various surfaces. A number of surfaces have acceptable adhesion without the use of adhesion promoter. Examples of increased adhesion with adhesion promoters on certain surfaces is presented. Surfaces vary widely, so adhesion should be assessed for each customer substrate. Some surfaces are porous and must be sealed before application of DI-NOC to prevent outgassing of the surface over time.

Test specimens were applied to the substrate and conditioned at 68°F (20°C) for 48 hours, then peel tested at 180 degrees at a tensile speed of 12 inches (300 mm) per minute.

		Adhesion Promoter				
Substrate	Application Surface	NO ADHESION PROMOTER Ib./in. (N/25mm)	WP-2000 (water-based) lb./in. (N/25mm)	3M <sup>™</sup> Tape Primer 94 (solvent-based) lb./in. (N/25mm)		
Wood	MDF (w/ sealer)	• 2 (8) <sup>3</sup>	◆ 11 (51)	<b>●</b> 4 (18)		
wood	Painted MDF	◆ 4 (20)	■ 12 (52)	<ul><li>▼ 7 (31)</li></ul>		
Boards	Gypsum Board (w/skim coat & sealer)	• 2 (8) <sup>3</sup>	<b>●</b> 8 (35)	• 4 (19)		
	Aluminum	<b>●</b> 11 (47)	<b>●</b> 11 (48)	<b>●</b> 11 (47)		
Metals	Anodized Aluminum	<b>●</b> 5 (23)	■ 13 (56)	<b>●</b> 11 (49)		
	Stainless Steel	<b>●</b> 6 (26)	■ 13 (56)	<b>●</b> 6 (28)		
Glass	Glass	<b>●</b> 6 (26)	■ 13 (58)	<b>●</b> 6 (26)		
	ABS	<b>●</b> 6 (28)	■ 13 (56)	<b>●</b> 10 (44)		
	Acrylic	<b>●</b> 5 (22)	■ 12 (54)	<b>●</b> 10 (43)		
	Polyester (PETG)	<b>●</b> 7 (29)	◆ 11 (51)	<b>●</b> 10 (45)		
Plastics <sup>1</sup>	Polypropylene	o 1 (2)	<ul><li>◆ 4 (17)</li></ul>	◆ 4 (20)		
	Polyethylene	o 1 (3)	<b>●</b> 5 (21)	o 1 (3)		
	Polycarbonate	<b>●</b> 6 (28)	■ 12 (53)	<b>●</b> 10 (44)		
	DI-NOC™ Film	• 5 (24) <sup>2</sup>	<b>●</b> 11 (49)	<b>●</b> 9 (42)		

WP-2000 undiluted for testing

- Acceptable adhesion
- Fails in adhesion
- 1 Bubbles may appear under film due to outgassing if plastic substrate is not fully cured before application.
- 2 If DI-NOC™ is wrapped and overlapped around edges, use of an adhesion promoter is highly recommended due to additional stress from wrapping DI-NOC™.
- 3 Sealer was wiped with Isopropyl alcohol to improve adhesion. Adhesion was tested using a spring scale per the DI-NOC Installation Guide and passed at 800-1000 g/in.

### **Processing Options**

Processing of the Product is on a user test and approve basis only. The user is responsible for results in all processing applications.

#### **Printing**

The Products are not designed for surface printing and have various surface textures. Printing is on a user test and approve basis only. No warranty is made for the quality or durability of printed Product.

#### Cutting

Electronic cutting, weeding and application tape with the Product must be used only on a user test and approve basis. The user should consider the following: (1) the type of liner used for the Product is not intended for electronic cutting; (2) there is currently no recommended application tape that adheres properly to the face of the Product to hold cut shapes in place.

# **Shelf Life and Storage**

#### **Shelf Life**

Apply the Product within 2 years of the date of purchase. The storage conditions specified in this document must be maintained for full shelf life.

### **Storage Conditions**

- 40°F 90°F (4°C 32°C)
- Away from direct sunlight and high humidity
- Clean, dry area
- Original container with end caps, in the plastic sleeve, stored horizontally, a maximum of 6 cartons high
- Bring the Product to room temperature before application

# **Cleaning and Maintenance**

Regular cleaning will help maintain the Product's appearance. Use only clean, nick-free tools and wipe gently. Do not use ammonia, chlorine, or organic-based cleaning products, polishing or cleaning compound, sponges, brushes or electric polishing equipment.

- If there is dust and grit, wipe it off with a soft, damp cloth.
- If it is soiled, but not gritty, use water and a soft cloth.
- If there is heavier soil, use a mild liquid detergent and water solution, then clear water, and wipe gently with a cloth wipe.

# **Health and Safety**



### /!\ CAUTION

When handling any chemical products, read the manufacturers' container labels and the Safety Data Sheets (SDS) for important health, safety and environmental information. To obtain SDS sheets for 3M products go to 3M.com/SDS, or 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.



# WARNING: Risk of Glass Breakage **Due to Thermal Expansion**

When applying the Product to glass surfaces, please consider that surfaces exposed to sunlight will absorb heat. A glass surface covered by a film with high opacity or dark-colored ink, including films with small areas of high opacity or dark-colored ink, will absorb more heat. Heat absorption can create thermal stress that results in glass breakage, or thermal cracking. This can cause personal injury and property damage. 3M specifically does not recommend using a film with high opacity or dark-colored ink on glass surfaces with significant exposure to sunlight. Also, note that the adhesive side of the film will be visible on the non-application side of the glass unless Product is applied to both sides of the glass.

# **Technical Information**

Technical information and data, recommendations, and other statements provided by 3M are based on information, tests, or experience which 3M believes to be reliable, but the accuracy or completeness of such information is not guaranteed. Such technical information and data are intended for persons with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. The typical values shown should not be used for the purpose of specification limits. If you have questions about this Product, contact the Technical Service helpline at 1-888-650-3497.

For more information or to order samples, please visit 3M.com/DI-NOC.

# **Change History**

### Rev G (15-SEPT-2015):

- Minor updates to Featured Benefits and Product Characteristics
- Added Expected Performance Life under Features and Benefits
- New "Shelf Life and Storage" section
- Updated Warranty language
- Added revision and doc type to footers, and other formatting changes.

# **Considerations for Design Selection by Product Series**

Product Series	Considerations in Product Design Selection						Notes
	Texture of Applica- tion Sur- face	Damage to Film Sur- face	Printed Pattern Match at Butt Seams	Embossed Pattern Match at Butt Seams	Lighting Envi- ronment After Application	Not recom- mended for use on compound curved surfaces	
LE Leather				•			Embossed patterns may appear random at seams.
SI Silk			•	•	•		The texture of this pattern has a grain: apply each sheet in the same direction and use a butt joint.  Delicate lines are visible in the pattern under down lights or spot lights.
NU Nuno			•	Particularly NU-1240 NU-1241	•	•	Not recommended for compound curved surfaces due to distortion of textured surface.
FE Weave				•		•	Embossed patterns may appear random at seams.     Use caution during cold weather application; cold stretching may rip film.     Not recommended for compound curved surfaces due to distortion of textured surface.
RS Random Style		•	•			•	Surface of film may be damaged when exposed to friction, creased, or dented.
			_				<ul> <li>Not recommended for compound curved surfaces due to distortion of textured surface.</li> </ul>
CA Carbon	•	•	•	CA-418 CA-420 CA-422 CA-423			Surface of film may be damaged when exposed to friction, creased, or dented.
HG High Gloss and White- board (WH-111)	•	•			•	•	Do not stretch or attempt to reposition the film during application, which may deform, buckle or ripple the film.     Seams will be visible when using a butt joint due to glossy film.     Fingerprints and other marks may be visible on films' glossy surface.     Film may bubble if applied to plastic substrates that outgas.
ME Metallic	•						
VM Metallic	•			•		•	Do not attempt to reposition the film during application, which can cause the film to separate from the adhesive. Surface of film may be damaged when exposed to friction, creased, or dented. Film may bubble if applied to plastic substrates that outgas.
FW Fine Wood			•				Printed patterns may appear ran- dom at seams.
MW Metallic Wood, LW Lit- tle Weave, PA Metallic	•						

# **Considerations for Design Selection by Product Series (continued)**

Product Series		Considerations in Product Design Selection					Notes
	Texture of Application Surface	Damage to Film Sur- face	Printed Pat- tern Match at Butt Seams	Embossed Pattern Match at Butt Seams	Lighting Environment After Appli- cation	Not recom- mended for use on compound curved surfaces	
FW Fine Wood Large-pat- terns product (e.g., FW-791)			•				To confirm the color, pattern, and suitability for butt seams, always view a film sample of at least 8" x 10".
Wipe Wood Grain WG-156 WG-157 WG-159 WG-166		•	•				The film surface has a special treatment. Do not use butt joints. Apply with reveals or joint separations.
WG-GN Wood Grain Gloss	•	•			•		Wrap squeegee in a soft cloth to prevent damage to the film sur- face.

### WARRANTY

#### **Product**

3M<sup>™</sup> DI-NOC<sup>™</sup> Architectural Finishes (the "Product(s)") are decorative films for use only in interior applications in commercial buildings ("Interior Applications").

### **3M Basic Product Warranty**

The Product(s) specified in this document are warranted to be free of defects in materials and manufacture ("3M Basic Product Warranty") on the date of shipment ("Warranty Period") by 3M or its authorized distributor.

### **Limited Warranty**

For Products used in Interior Applications in the continental United States, 3M makes the following warranty (the "3M Limited Warranty") for the applicable time period stated below ("Warranty Period"), which will begin on the earlier of: (a) Product installation date; or (b) six months after 3M's Product shipment date.

The Product will have no significant discoloration, cracking, swelling or other similar visual defects for the applicable time period below:

	Warranty Period	
Interior Applications	Vertical Applications, No Direct UV Exposure	3 years
Exterior applica	tion surfaces	Not available

- For a buyer's convenience, 3M may provide engineering or technical information, recommendations, installation instructions or guides, and other information or materials relating to a Product ("Other Product Information"), but 3M makes only the 3M Basic Product Warranty and the 3M Limited Warranty, and does not warrant any Other Product Information.
- 3M has no obligation under the 3M Basic Product Warranty or the 3M Limited Warranty as to Product that has been: (a) modified, altered or processed in any manner; (b) stored, applied, installed, or used in a manner other than that 3M recommends in this document and in all Other Product Information; (c) damaged through contact with a person or thing, misuse, accident, neglect, or other action by anyone other than 3M; (d) improperly

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- installed, including, without limitation, installation after the expiration the Product's shelf life or installation without proper surface preparation, or (e) exposed to excessive heat, humidity, dirt or UV light.
- EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW. THE 3M WARRANTY IS MADE IN LIEU OF ALL OTHER WARRANTIES. RIGHTS OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MER-CHANTABILITY, SATISFACTORY QUALITY, FITNESS FOR A PAR-TICULAR PURPOSE AND THOSE ARISING FROM A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. THE BUYER IS RESPONSIBLE FOR DETERMINING IF A PRODUCT IS SUITABLE FOR ITS PARTICULAR PURPOSE AND APPLICATION METHODS.
- 3M must receive any 3M Warranty claim in writing no later than 10 business days after (a) the end of the Warranty Period or (b) the discovery of the 3M Warranty claim, whichever is earlier.

#### **Limited Remedy**

IF ANY PRODUCT IS PROVEN NOT TO HAVE MET THE 3M WARRANTY DURING THE WARRANTY PERIOD, THEN THE BUYER'S EXCLUSIVE REMEDY, AND 3M'S SOLE OBLIGATION, WILL BE, AT 3M'S OPTION, TO REPLACE THE NONCONFORMING PRODUCT OR TO REFUND THE NONCONFORMING PRODUCT'S PURCHASE PRICE.

#### **Limitation of Liability**

3M WILL NOT UNDER ANY CIRCUMSTANCES BE LIABLE TO A BUYER FOR DIRECT (other than the Limited Remedy stated above). SPECIAL. INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES (INCLUDING, WITHOUT LIMITATION, LOSS OF PROFITS) IN ANY WAY RELATED TO THE PRODUCT. THE TECH DATA SHEET OR OTHER PRODUCT INFORMATION, REGARDLESS OF THE LEGAL OR EQUITABLE THEORY ON WHICH SUCH DAMAGES ARE SOUGHT.

### **3M Commercial Solutions** 3M U.S.

3M Center Building 220-12E-04 St. Paul, MN 55144-1000 1-888-650-3497 3M.com/AMD

#### 3M Canada

1840 Oxford St E London, ON N5V 3R6 1-800-265-1840

### **3M Commercial Solutions** 3M Europe

1831 Diegem www.3M.eu/ArchitecturalMarkets

### 3M Commercial Solutions 3M Italia, S.p.A.

Via Nortberto Bobbio, 21 20096 Pioltello MI Tel. 02.7035.2517 3mitalia.it

### 3M India Limited **Commercial Solutions**

Concorde Blook, UB City 24 Vittal Mallya Road, Bangalore 560 001 Tel: 080 2223 1414 | Fax: 080 2223 1450 3minteriors.in@mmm.com www.3M.com/in/interiors

### **3M Commercial Solutions** 3M Gulf

PO Box 20191, Dubai Internet City Building @ 11 Dubai, United Arab Emirates Tel. 971 4 3670 777 | Fax 971 4 3670 998

