



SECTION 09-94 10
ARCHITECTURAL FINISH FILMS
3M™ DI-NOC™

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. 3M™ DI-NOC™ Architectural Finishes
- B. Related Sections

Note: Delete any section below not relevant to this project; add others as required.

- 1. Section 06 20 00 – Finish Carpentry
- 2. Section 06 40 00 – Architectural Woodwork
- 3. Section 09 29 00 – Gypsum Board: Gypsum wallboard back-up
- 4. Section 12 30 00 – Manufactured Casework

1.2 SUBMITTALS

- A. Manufacturer's Product Data for specified products.
- B. Submit shop drawings showing layout, profiles, and product components, including dimensions, anchorage, and accessories.
- C. Samples: 4 inch by 4 inch Samples of specified color and pattern for verification.
- D. Mockups: as required.
- E. Submit operation and maintenance data for installed products, including precautions against harmful cleaning materials and methods.
- F. LEED requirements: Refer to Section 01-8112 and Section 01-8113 for information regarding VOC limits, recycled content, regional materials, and required documentation.

1.3 QUALITY ASSURANCE

- A. Obtain all products in this section from a single supplier.
- B. Installer: Installation shall be performed by a trained and qualified installer, specialized and experienced in work required for this project. A list of 3M Endorsed installers is available at 3M.com/AMD or 3M Commercial Solutions, 1-888-650-3497.

1.4 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver products in manufacturer's original, unopened, undamaged containers with identification labels intact.
- B. Store products protected from weather, temperature, and other harmful conditions as recommended by supplier.
- C. Product must remain in original plastic bag and boxes and have storage conditions as follows:
 - 1. 40 °F – 90 °F (4 °C – 32 °C)
 - 2. Out of direct sunlight
 - 3. Clean dry area
 - 4. Original container
 - 5. Do not stack boxes over six (6) units high. Excessive weight can damage the film
 - 6. Relative humidity below 80 percent

7. Handle products in accordance with manufacturer's instructions.
8. Total pre-installation shelf life: 2 years. Up to 2 years unprocessed, OR process within 1 year and apply within 1 year of processing.

1.5 PROJECT/SITE CONDITIONS

- A. Confirm appropriate substrate is suitable for mounting of architectural finish components prior to start of installation.
- B. Apply materials when environmental conditions are continuously heated. Application temperature range is 60 °F - 100 °F (16 °C - 38 °C).
- C. Environmental Limitations: Do not install until spaces are enclosed and weatherproof, wet work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

1.6 WARRANTY

- A. Manufacturer's Warranty: Submit manufacturer's standard warranty document by authorized manufacturer.
- B. Standard Product Warranty: See the *3M™ DI-NOC™ Technical Data Sheet*.

1.7 EXTRA MATERIALS

- A. Furnish 2 percent extra material at time of installation. Deliver in protective packaging for storage and label contents appropriately.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. 3M Company - Commercial Solutions Division [CSD]

3M Center, Building 0220-12-E-04
St. Paul, MN 55144-1000, USA
1-888-650-3497
- B. Material Standard: Design based upon 3M™ DI-NOC™ Architectural Finishes with pressure-sensitive adhesive and air release channels depending on individual part number specified.
- C. Design Standard: based upon DI-NOC™ Architectural Finishes material.

2.2 MATERIAL PROPERTIES

- A. General: [Wood grain] appearance and texture graphic film field applied application.
- B. Film: Vinyl 8 mil (200 microns) thickness (thickness includes film and adhesive, excludes liner).
Note: Please verify materials in each pattern of DI-NOC™ specified.
- C. Liner: Silicone-coated poly paper, 6.2 mils (157 microns).
- D. Adhesive: Pressure-sensitive with air release channels, recommended by manufacturer.
- E. Fire-Test-Response Characteristics: Most patterns of 3M™ DI-NOC™ finishes have the following fire-test-response characteristics as determined by testing Products applied to substrates per test method indicated below by UL or another testing and inspecting agency acceptable to authorities having jurisdiction.

Note: Please verify fire rating for each pattern of DI-NOC™ specified.

1. Surface-Burning Characteristics: As follows, per ASTM E84:
 - a. Flame-Spread Index: 25 or less.
 - b. Smoke-Developed Index: 450 or less.

- F. Abrasion Resistance Taber® Abraser Abrasion wheel
 - 1. CS-17 Abrasion Wheel: 1kg loading weight, 7,000 cycles with no wear-through of surface finish.
- G. Chemical and stain resistance: Contaminant was in contact with the film surface for 24 hours and then removed using water or mild detergent. Results may vary. The following contaminants were tested: Coffee, Tea, Cola, Milk, Red Wine, Ketchup, Soy Sauce, Cooking Oil, Vinegar, Mustard, Crayon, Shoe Polish (a little stain remained), Betadine Iodine, Soap Solution (1%), Ammonia solution (10%), Citrate solution (10%), Ethyl Alcohol (50%).
- H. Application: [list location where product will be used].
 - 1. Design category: [fill in]

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrate(s) for compliance with requirements for non-porous, smooth surface and other conditions affecting the performance of work in this section. Do not proceed with installation until unsatisfactory conditions have been corrected.
- B. Reference *3M™ DI-NOC™ Technical Data Sheet* and *3M™ DI-NOC™ Installation Guide* to determine compatibility of finish to substrate.
- C. Do not proceed with installation until unsatisfactory conditions have been corrected.
- D. Responsibility for state of surfaces prior to installation to be pre-determined by installation specialist.
- E. Scheduling of installation by Owner or its representative implies that substrate and conditions are prepared and ready for product installation per the recommendations of the installation specialist.
- F. Proceeding with installation implies installer's acceptance of substrate and conditions.

3.2 SURFACE PREPARATION

- A. Comply with all manufacturers' instructions for surface preparation. Consider these factors in determining the suitability of the Product:
 - 1. Substrate texture affects Product adhesion and application ease.
 - a. Unless the substrate is very smooth, its texture may be visible through Product.
 - b. Compounds used to smooth a textured substrate permanently change that substrate.
 - c. Product removal may damage the substrate or its finish.
 - 2. Application surface conditions affect Product adhesion.
 - a. Ensure that the existing paint, surface finish, or wall covering has excellent bond to the substrate area where Product will be applied.
 - b. Repair, prime and paint the substrate, as needed.
 - c. An adhesion promoter may be required to increase Product adhesion.
 - 3. Human and environmental conditions affect Product.
 - a. Temperature and humidity in recommended range.
 - b. Direct UV light (sunlight).
 - c. Heating or cooling ducts in close proximity.
 - d. Unsealed substrates in front of water sources.
 - e. 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.

- B. Test and prepare application surfaces per instructions in the *3M™ DI-NOC™ Installation Guide*.
 - 1. Use the 3M™ Wall Adhesion Test to determine the compatibility of the application surface with the Product.
 - 2. Use the 3M™ Enhanced Cleaning Method to ensure that the application surface is ready to receive and hold the Product.
- C. Repair damaged application surfaces per instructions in the *3M™ DI-NOC™ Installation Guide*
- D. Re-clean application surfaces with a lint-free cloth and 70/30 IPA cleaning solution, or use the 3M™ Enhanced Cleaning Method in the *3M™ DI-NOC™ Installation Guide*.

3.3 APPLICATION

- A. Refer to the *3M™ DI-NOC™ Installation Guide* for specific application instructions.
- B. Application must be performed by a qualified installer. Refer to 3M.com/AMD for a list of 3M-endorsed installers.
- C. Do not proceed with installation until all finishing work has been completed in and around the work area.
- D. Measure the application surface and cut film to size with a minimum ½ in. extra on all sides for trimming.
- E. Install substrates with no gaps, wire seams, or overlaps. Form smooth, wrinkle-free, bubble-free surface for finished installation.
- F. No exposed joints on corners or other “open” type joints permitted.
- G. Verify pattern prior to material acquisition as some part numbers do not allow three-dimensional forming.
- H. Comply with manufacturer’s installation instructions applicable to products and applications indicated, except where more stringent requirements apply.
- I. Apply 3M™ DI-NOC™ over properly prepared substrates.
- J. Remove air bubbles, wrinkles, and blisters. Use approved procedures to prevent the formation of air bubbles, wrinkles, blisters and other defects.

3.4 SCHEDULE

Note: When more than one pattern of 3M™ DI-NOC™ is specified, it is necessary to identify where each pattern will be used. A schedule may be useful for that purpose, if the patterns are not to be indicated on the drawing. The following is a suggested format for such a schedule, with an example.

- A. Room:
- B. Fixture:
 - 1. Horizontal Surfaces Exposed to View: Design Category, Product number
 - 2. Vertical Surfaces Exposed to View: Design Category, Product number
 - 3. Semi-exposed Surfaces: Design Category, Product number
 - 4. Shaped Goods: Design Category, Product number
 - 5. Moldings: Design Category, Product number
- C. Shop Drawing Reference: In addition to original A/E elevations, the installation specialist may be asked to provide elevation views of installation surfaces to confirm design intent upon request.

3.5 CLEANING AND PROTECTION

- A. Use cleaning methods recommended by architectural surfacing manufacturer for applicable environment.
- B. Protect completed graphic film during remainder of construction period.
- C. Consult with authorized installation specialist for project specifics.

END OF SECTION
