

**SECTION 09-94 10 - ARCHITECTURAL FINISH FILMS****PART 1 - GENERAL****1.01 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

**1.02 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. Submit operation and maintenance data for installed products, including precautions against harmful cleaning materials and methods.
- E. LEED requirements: Refer to Section 01-8112 and Section 01-8113 for information regarding VOC limits, recycled content, regional materials, and required documentation.
- F. Submit Carbon Offset Credits for particular pattern. Certificate of Conformance with signed certificate of product compliance and carbon credits.

**1.03 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 experienced installation integrators is available from 3M Architectural Markets Department, 1 800 265 1840 x 7481 or aastilin@mmm.com
- C. Manufacturer Qualifications: Carbon credit (carbon offset credit) shall comply with the Kyoto protocol and use the established the Clean Development Mechanism (CDM), which validates and measures projects to ensure they produce authentic benefits and are genuinely "additional" activities that would not otherwise have been undertaken.

**1.04 MOCK UPS****1.05 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. 95°F (35°C) maximum temperature
  - 2. Out of 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

#### 1.06 PROJECT /SITE CONDITIONS

- A. Confirm appropriate substrate is suitable for mounting of graphic film components prior to start of installation.
- B. Apply materials when environmental conditions are continuously heated. Application temperature range from 40 to 100 degrees F.
- 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

#### 1.07 WARRANTY

- A. Manufacturer's Warranty: Submit manufacturer's standard warranty document by authorized manufacturer.
- B. Standard Product Warranty: See Product Bulletins and Color Sample Book for individual pattern and texture rating.

#### 1.08 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

#### 2.01 MANUFACTURER

- A. 3M Canada Company - Architectural Markets Department [AMD]  
Contact: Andy Stilin, aastilin@mmm.com  
Business Development Manager, 3M Canada AMD  
Direct: (800) 265-1840 x 7481  
1840 Oxford Sheet East  
PO Box 5757 London Ontario N5V 3R6  
Technical Info: 1-800-328-3908
- B. Material Standard: Design based upon DI-NOC™ Architectural Finishes with pressure-sensitive adhesive and air release channels depending on individual part number specified Standard: Design is based upon DI-NOC™ Architectural Finishes, material

#### 2.02 MATERIAL PROPERTIES

- A. General: [Wood grain] appearance and texture graphic film field applied application.
- B. Film: Vinyl 8.5 mil thickness with adhesive.
- C. Liner: Polyethylene coated paper.
- D. Adhesive: Pressure sensitive with air release channels, recommended by manufacturer.
- E. Fire-Test-Response Characteristics: Provide 3M Di-Noc with the following fire-test-response characteristics as determined by testing identical products applied with identical adhesives to substrates per test method indicated below by UL or another testing and inspecting agency acceptable to authorities having jurisdiction.
  1. Surface-Burning Characteristics: As follows, per ASTM E84/UL-723:
    - a. Flame-Spread Index: 25 or less.
    - b. Smoke-Developed Index: 450 or less.
- F. Emission of formaldehyde (JP).

1. Test Method: JIS A1901 or JIS A1460.
  2. Related ISO: ISO 16000-3, ISO/DIS 1000-6, ISO 16017-1.
  3. Highest grade: F.
- G. Abrasion Resistance (JIS K7204) Taber® Abraser Abrasion wheel.
1. CS-17 Loading weight: 1kg Cycles- 7,000 cycles with no pattern change on surface.
- H. Chemical and stain resistance: No changes with 24 hour exposure (at 23°C) for Coffee, Tea, Cola, Milk, Wine, Ketchup, Vinegar, Olive oil, Lemon juice, Salt solution(1%), Household ammonia(10%), Soap solution(1%), Formalin(36%), Citric acid solution (10%), HCL (10%), NaOH (10%), or Ethyl Alcohol.
- I. Application: *[list location where product will be used]*.
1. Design category "[Wood Grain]", Product Series "[WG]", [wood pattern] indicated in Section 09-0601.

### **PART 3 - EXECUTION**

#### **3.01 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 Product Bulletin D1 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

#### **3.02 SURFACE PREPARATION**

- A. Comply with all manufacturer's instructions for surface preparation
- B. Thoroughly clean substrate of substances that could impair the overlay's bond, including mold, mildew, oil, grease, incompatible primers and dirt with cleaners approved for the particular
- C. Prepare non-porous substrates to achieve a smooth, dry, clean surface, free of flaking, unsound coatings, cracks and defects.
- D. Finish sand surfaces to achieve proper adhesive bond surface.
- E. Re-clean surfaces with appropriate surface prep solvent and remove any haze or surface contamination.
- F. Tack-roll surface immediately prior to application.
- G. Prepare porous surfaces per instruction of 3M Product Bulletin D1 for the DI-NOC material. NO EXCEPTIONS
- H. Apply proper surface sealer, primer or tertiary adhesive as required by the substrate complexity

#### **3.03 APPLICATION**

- A. Application must be performed by qualified installer.
- B. Do not proceed with installation until all finishing work has been completed in and around the work area.
- C. Verify pattern prior to material acquisition as some part numbers do not allow three-dimensional forming.
- D. Comply with manufacturer's installation instructions applicable to products and applications indicated, except where more stringent requirements apply.

- E. Apply 3M Di-Noc over properly prepared substrate. Clean substrate of substances that could impair the overlay's bond, including mold, mildew, oil, grease, incompatible primers and dirt.
- F. Install overlay with no gaps or wire seams
- G. For three-dimensional constructions, such as rounded, arched, beveled, stepped forms, heat product to mold to substrate so that pattern has a continuous, realistic, even appearance
- H. Prepare non-porous substrates to achieve a smooth, dry, clean surface, free of flaking, unsound coatings, cracks and defects.
- I. [Prepare porous surfaces per instruction of 3M Product Bulletin D1 for the DI-NOC material.]
- J. Install substrates with no gaps or overlaps. Form smooth, wrinkle-free, bubble-free surface for finished installation.
- K. Remove air bubbles, wrinkles, blisters and other defects. Use approved procedures to prevent the formation of air bubbles, wrinkles, blisters and other defects
- L. Install to appropriate, prepared substrates with no gaps or overlaps and work to smooth, wrinkle-free, bubble-free surface for finished installation
- M. No exposed joints on corners or other "open" type joints permitted.

### 3.04 SCHEDULE

Note: When more than one type of Di-Noc is specified in this section, it will be necessary to identify where each type is to be used. A schedule may be useful for that purpose, if the types 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

### 3.05 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

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