

## SECTION 05080

### DECORATIVE METAL COATINGS

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**\*\* NOTE TO SPECIFIER \*\*** Direct Embed Coating Systems; image embedding process DECS.

This section is based on the products of Direct Embed Coating Systems, which is located at:

280 North Midland Ave.  
Building C-1  
Saddle Brook, NJ 07663  
Tel: (201) 403-6929  
Email: [kevin@directembedcoating.com](mailto:kevin@directembedcoating.com)  
Web: <http://www.directembedcoating.com>  
[{click Here} for additional information.](#)

We turn the ordinary into extraordinary! With our metal fabrication facility, state of the art powder coating and our 3-D embedding process DECS will create for you what up to now was just a vision that you held for the future. With DECS the future of design has arrived.

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

**\*\* NOTE TO SPECIFIER \*\*** Delete applications below not required for project.

- A. Permanent imaging thermally-embedded in flat surfaces and dimensional objects for the following applications:
  - 1. Exterior architectural surfaces.
  - 2. Interior architectural surfaces.
  - 3. Glass surfaces.
  - 4. Signage and streetscape components.
  - 5. Retail components.
  - 6. Exhibition components.
  - 7. Furniture.
  - 8. **Other**

##### 1.2 RELATED SECTIONS

**\*\* NOTE TO SPECIFIER \*\*** Add sections below relevant to this project as required.

- A. Section 09900 – Paints and Coatings.

##### 1.3 SYSTEM DESCRIPTION

- A. Process: The process embeds a high resolution image deep into and throughout a **super** durable powder coated layer. The image is embedded inside the powder and flows seamlessly over edges and corners. It is not a film or a laminate. There are no visible corners and no delamination. The process shall be capable of coating and decorating both flat surfaces and dimensional objects.
  - 1. Product substrates selected shall be able to withstand the 350 degree F (177 degree C) temperature of the powder coating oven. This includes and is not limited to aluminum, steel, glass, MDF, ceramic and high temperature plastics.
- B. Characteristics: Coating shall be **super** durable polyurethane powder coated finish that is

resistant to abrasion, humidity and corrosion. It shall be anti-graffiti, scratch resistant and non-combustible. The coating process shall be applicable for both interior and exterior applications. Coating shall withstand high traffic and extreme weather.

1. Available characteristics include anti-skid, antimicrobial, post-formable and super texture.

C. Capability: Embed process capability shall allow parts from the size of a button to 24 feet (7315 mm) in length. Includes dimensional objects, flat and embossed sheets, extruded profiles, and folded panels.

#### 1.4 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Product Data: Manufacturer's data sheets on each product to be used.

C. Shop Drawings: For all fabrications, including details of construction and attachment to adjacent surfaces.

D. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square representing actual product, color, and patterns.

E. Sustainability Submittals:

1. Certificates for percentage of recyclable base materials, recyclable transfer film and organic water-based inks.

2. Coating Process documentation of polyurethane powders emitting zero or near zero volatile organic compounds (no VOC's).

#### 1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: Minimum 3 years experience manufacturing similar products. Manufacturer shall have capability to provide a "delegated design" responsibility including prototypes, value engineering and budget analysis.

B. Quality Assurance Process: The following services shall be provided by the manufacturer to deliver the specified product for installation.

1. Project Management: Management of the design facilitation, review, prototype and implementation process.

2. Value Engineering: Reviewing possible cost saving approaches for single or multiple production pieces.

3. Prototype Development: Creating a full design element or portion of the element that reflects the final production piece.

4. Production/Fabrication: Creation of the final production piece.

5. Coating and Embedding: The powder coating and embedded decoration of the final production piece.

6. Installation and Service: Installation of the final production piece as well the maintenance of the final piece after installation.

**\*\* NOTE TO SPECIFIER \*\* Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.**

C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.

1. Finish areas designated by Architect.

2. Do not proceed with remaining work until workmanship is approved by Architect.

3. Rework mock-up area as required to produce acceptable work.

## 1.6 PRE-INSTALLATION MEETINGS

- A. Convene minimum two weeks prior to starting work of this section.

## 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store products in manufacturer's unopened packaging until ready for installation.
- B. Handling: Handle materials to avoid damage.

## 1.8 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

## 1.9 SEQUENCING

- A. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

## 1.10 WARRANTY

- A. Manufacturer's Warranty: Provide manufacturer's standard warranty for up to 10 years depending on location, substrate, environment and amount of direct sunlight.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Direct Embed Coating Systems; 280 North Midland Ave., Building C-1, Saddle Brook, NJ 07663. ASD. Tel: (201) 403-6929. Email: kevin@directembedcoating.com  
Web: <http://www.directembedcoating.com>

**\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.**

- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

### 2.2 COATING SYSTEM

- A. Powder Coating with Embedded Image using DECS Equipment: As manufactured by Direct Embed Coating Systems. Coating shall be resistant to abrasion, humidity and corrosion; anti-graffiti, scratch resistant, non-combustible, super-durable (UV resistant), and TGIC free (non-toxic). Suitable for both interior and exterior applications. Coating shall withstand high traffic and extreme weather..
  1. Substrate Material: As indicated on the Drawings.
  2. Substrate Material: \_\_\_\_\_.
  3. Image Source: As indicated on the Drawings.
  4. Image Source: \_\_\_\_\_.
  5. Color: As indicated on the Drawings.
  6. Color: \_\_\_\_\_.
  7. Finish: As indicated on the Drawings.
  8. Finish: Matte.
  9. Finish: Gloss.

10. Finish: Textured matte.
11. Finish: Textured gloss.

**\*\* NOTE TO SPECIFIER \*\* Provide description and drawing references to production pieces utilizing the imaging coating process.**

## 2.3 APPLICATIONS/SCOPE

- A. Sign and Streetscapes: As detailed on the Drawings for the following applications.
  1. Identity.
  2. Wayfinding.
  3. Interpretive.
  4. Banners.
  5. Landmarks.
  6. Overhead.
  7. Parks.
  8. Waste Units.
  9. Benches.
  
- B. Exhibition: As detailed on the Drawings for the following applications.
  1. Museums.
  2. Tradeshows.
  3. Public spaces.
  4. Corporate.
  5. Visitor's centers.
  6. Institutional.
  7. Donor.
  
- C. Architectural Exteriors: As detailed on the Drawings for the following applications.
  1. Cladding.
  2. Glass block.
  3. Curtain wall.
  4. Awnings.
  5. Shutters.
  6. Murals.
  7. Screens.
  
- D. Retail: As detailed on the Drawings for the following applications.
  1. Fixtures.
  2. Cabinets.
  3. Shelving.
  4. Wall Units.
  5. Lighting Fixtures.
  6. End Caps.
  7. Point of Purchase.
  8. Kiosks.
  9. Hand Dryers.
  
- E. Products and Furniture: As detailed on the Drawings for the following applications.
  1. Stools.
  2. Tables.
  3. Chairs.
  4. Tins.
  5. Lamps.
  
- F. Architectural Interiors: As detailed on the Drawings for the following applications.
  1. Walls..
  2. Floors.

3. Wainscotting.
  4. Flooring.
  5. Bathroom partitions.
  6. Office partitions.
- G. Coatings on Glass: : As detailed on the Drawings for the following applications.
1. Interior glass.
  2. Exterior glass.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

### 3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

### 3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions and in proper relationship to adjacent surfaces.

### 3.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION