

SECTION 05080

FACTORY-APPLIED METAL COATING SYSTEM

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Factory-applied metal coating system.

1.2 RELATED SECTIONS

- A. Section 02890 - Traffic Sign and Signals.
- B. Section 05520 - Handrails and Railings.
- C. Section 05580 - Formed Metal Fabrications.
- D. Section 05700 - Ornamental Metal.
- E. Section 07410 - Metal Roof and Wall Panels.
- F. Section 07600 - Flashing and Sheet Metal.
- G. Section 07700 - Roof Specialties and Accessories.
- H. Section 08120 - Aluminum Doors and Frames.
- I. Section 08400 - Entrances and Storefronts.
- J. Section 08500 - Windows.
- K. Section 08600 - Skylights.
- L. Section 08910 - Metal-Framed Curtain Wall.
- M. Section 10200 - Louvers and Vents.
- N. Section 10430 - Exterior Signage.
- O. Section \_\_\_\_\_ - \_\_\_\_\_.

1.3 REFERENCES

- A. AAMA 605.2 - High Performance Organic Coatings on Architectural Aluminum Extrusions and Panels.
- B. ASCA '96 - Voluntary Specification for Superior Performance of Organic Coatings on Architectural

Aluminum, Curtainwall, Extrusions, and Miscellaneous Aluminum Components.

- C. ASTM B 117 - Practice for Operating Salt Spray (Fog) Apparatus.
- D. ASTM B 244 - Measurement of Thickness of Anodic Coatings on Aluminum and of Other Nonconductive Coatings on Nonmagnetic Basis Metals with Eddy-Current Instruments.
- E. ASTM D 523 - Test Method for Specular Gloss.
- F. ASTM D 968 - Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive.
- G. ASTM D 1308 - Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes.
- H. ASTM D 1654 - Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments.
- I. ASTM D 2244 - Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates.
- J. ASTM D 2247 - Practice for Testing Water Resistance of Coatings in 100 Percent Relative Humidity.
- K. ASTM D 2248 - Practice for Detergent Resistance of Organic Finishes.
- L. ASTM D 2794 - Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
- M. ASTM D 3359 - Test Methods for Measuring Adhesion by Tape Test.
- N. ASTM D 3363 - Test Method for Film Hardness by Pencil Test.
- O. ASTM D 4214 - Test Methods for Evaluating Degree of Chalking of Exterior Paint Films.
- P. \_\_\_\_\_.

#### 1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Certification: Letter from coating licensee that specified coating contains KYNAR 500(R) resin manufactured by Elf Atochem North America, Inc.

#### 1.5 WARRANTY

- A. \_\_\_\_\_.

### PART 2 PRODUCTS

#### 2.1 MANUFACTURERS

- A. Acceptable Resin Manufacturer: Elf Atochem North America, Inc., 2000 Market Street, Philadelphia, PA 19103-3222; ASD. Tel: (800) KYNAR 500 (800-596-2750), Fax: (215) 419-7497.
- B. Acceptable Coating Formulator: Licensee of Elf Atochem North America, Inc.
  - 1. Akzo Nobel Coatings, Inc. - Trinar.
  - 2. Lilly Industries - Nubelar.
  - 3. Morton International - Fluoroceran.
  - 4. PPG Industries, Inc. - Duranar.
  - 5. The Valspar Corporation - Fluropon.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.
- D. Substitutions: Not permitted.
- E. Provide all factory-applied metal coatings from a single formulator.

#### 2.2 MATERIALS

- A. Primary Coating: Dispersion coating based on a minimum of 70 percent by weight of KYNAR 500(R) resin, formulated with solvents and high quality pigments, meeting or exceeding the following performance requirements:
  - 1. ASCA '96/AAMA 605.2: Meet or exceed physical test performance criteria for high-performance organic coatings on architectural extrusions and panels.
  - 2. Specular Gloss: Medium Gloss (ASTM D 523).
  - 3. Dry Film Hardness: Meeting or exceeding ASTM D 3363.
  - 4. Dry Film Adhesion: No adhesion loss (ASTM D 3359).
  - 5. Wet Film Adhesion: No adhesion loss (ASTM D 3359).

6. Boiling Water Adhesion: No adhesion loss (ASTM D 3359).
7. Impact Resistance: No cracking or adhesion loss (ASTM D 2794).
8. Abrasion Resistance: Meeting or exceeding ASTM D 968.
9. Muriatic Acid Resistance: No effect (ASTM D 1308).
10. Mortar Resistance: No effect.
11. Nitric Acid Resistance: Meets or exceeds specification.
12. Detergent Resistance: No effect (ASTM D 2248).
13. Humidity Resistance: Meeting or exceeding ASTM D 2247 and B 117.
14. Salt Spray Resistance: Meeting or exceeding ASTM D 1654.
15. South Florida Weathering Exposure: Meets or exceeds specification.
16. Color Retention: Meeting or exceeding ASTM D 2244.
17. Chalk Resistance: Meeting or exceeding ASTM D 4214.
18. Gloss Retention: Meeting or exceeding ASTM D 523.
19. Erosion Resistance: Meeting or exceeding ASTM B 244.
20. Color: \_\_\_\_\_.
21. Texture: \_\_\_\_\_.

PART 3 EXECUTION

3.1 PREPARATION

- A. Clean, pre-treat, and prime substrates according to specifications of licensed formulator.

3.2 APPLICATION

- A. Factory-apply and oven bake primary coating.
  1. Total Overall Dry Film Thickness of 2-Coat System (including Primer): 0.8 to 1.3 mils (20.3 to 33 micrometers).
  2. Total Overall Dry Film Thickness of 2-Coat System (including Primer): \_\_\_\_\_ mils.
- B. Factory-apply and oven bake 3-coat system.
  1. Total Overall Dry Film Thickness of Coating System (including Primer): \_\_\_\_\_ mils.
- C. Factory-apply and oven bake 4-coat system.
  1. Total Overall Dry Film Thickness of Coating System (including Primer): \_\_\_\_\_ mils.
- D. Spray apply and oven bake primary coating to the following surfaces:
  1. Aluminum surfaces: \_\_\_\_\_.

2. \_\_\_\_\_.

END OF SECTION