

## **SECTION 10 73 16 CANOPIES**

### **PART 1 - GENERAL**

#### **1.1 DESCRIPTION OF PRODUCT**

- A. Wall mounted hanging rod canopy system.

#### **1.2 REFERENCES**

- A. REFERENCE STANDARDS:
  - 1. AAMA –Voluntary specification 2605-98
  - 2. ASTM – B209, A653, A792, A36
  - 3. AMS – QQ-A-250/2
  - 4. AWS - American Welding Society.

#### **1.3 SUBMITTALS**

- A. Submit approval drawings and calc books, both signed and sealed by a Professional Engineer licensed in the state where the project is located.
- B. PRODUCT DESIGN REQUIREMENTS:  
The canopy shall meet the following design requirements as shown on the drawings:
  - 1. Building Code: See drawings.
  - 2. Ground Snow Load (Pg): See drawings.
  - 3. Basic Wind Speed (V): See drawings.
  - 4. Seismic Design: See drawings.
- C. SUBMITTAL REQUIREMENTS: Calculations and Submittal drawings shall include, at a minimum:
  - 1. Calculations:
    - a. References to building codes and design manuals used for calculations.
    - b. Formulas used for determining snow, wind, and seismic loads to specific project location.
    - c. Connection design for anchorage to the building.
  - 2. Submittal Drawings shall specify and indicate:
    - a. All materials and finishes to be applied.
    - b. Canopy framing.
    - c. Panel lay-out.
    - d. Hanging rod diameter and clevis size.
    - e. Upper wall brackets.
    - f. Methods of anchorage, including structural connection details showing bolt sizes and plate thicknesses.

#### **1.4 QUALITY ASSURANCE**

- A. MANUFACTURER QUALIFICATIONS:
  - 1. Company specializing in engineering and manufacturing pre-engineered canopies with a minimum experience of ten (10) years.

## 1.5 MANUFACTURER WARRANTY

- A. Canopy framing must have a 10-year limited warranty on paint finish.
- B. Canopy roof panels from pre-finished coil stock must have a 20-yr limited warranty on paint finish.

## PART 2 – PRODUCTS

### 2.1 CANOPY SYSTEM AND MATERIALS

#### A. MANUFACTURERS:

- 1. Acceptable Manufacturer: Foline Architectural Systems, LLC, 25523 Ruff Street, Plainfield, IL 60585; Phone (630) 922-7879; Fax (630) 922-0880; [www.flolinesystems.com](http://www.flolinesystems.com) Receive pricing from the corporate office, 25523 Ruff Street, Plainfield, IL 60585; Phone (630) 922-7879; Fax (630)-922-0880

#### B. SUBSTITUTION LIMITATIONS:

- 1. Substitutions must be approved a minimum of ten (10) days before bid. All approved manufacturers shall be notified in writing before the bid date and shall not be allowed to bid without written notification.

#### C. PRODUCT REQUIREMENTS AND MATERIALS:

- 1. GENERAL: The Foline Marquee Imperial canopy (frame and roof panels) shall be shop assembled. Upper wall brackets, hanging rod assemblies, and mounting hardware will ship “loose” for final field assembly. Field labor will be kept to a minimum by pre-manufactured parts.

- 2. CANOPY FRAMING: Custom formed shapes fabricated and factory welded from aluminum plate conforming to AMS QQ-A-250/2 – ASTM B209. Frame will have a 70% Kynar finish conforming to AAMA 2605-98. Color chosen from manufacturer's standard color chart. Mechanical connections of framing utilizing rivets are not acceptable.

#### 3. WALL CONNECTION REQUIREMENTS:

- a. Structural fasteners thru canopy frame shall be 300 series alloy stainless steel bolts/anchors.
- b. Structural fasteners thru upper wall brackets shall be hot dipped galvanized A307 bolts.
- c. Hanging rod assemblies shall be 300 series alloy stainless steel.
- d. All exposed fasteners shall be painted by manufacturer prior to shipment to match the canopy color.

#### 4. SHEET METAL

- a. Roof Panels to be either Foline 900 profile: 1-1/2 inch (38 mm) deep with ribs spaced 5.9 inches (150 mm) on center; nominal cover width of 35.4 inches (900 mm); or Foline 940 profile: 1-1/2 inch (38 mm) deep with ribs spaced 7.2 inches (183 mm) on center; nominal cover width of 36 inches (914 mm); sidelap occurs at top of high ribs.
  - 1. Substrate and material thickness:
    - a. Aluminum in 0.040” thickness
  - 2. Paint finish: Kynar 500® paint on topside, standard off-white primer on backside Color chosen from manufacturer's standard color chart.
- b. Sheet metal components
  - 1. Provide accessories and other items essential to completeness of canopy installation as shown on drawings.
  - 2. Form components from same gauge and finish as metal panels, unless otherwise noted.

## 5. FINISHES:

- a. KYNAR 500® FINISH ON ALUMINUM CANOPY FRAMING:
  1. Spray-applied 70% Kynar finish meeting the AAMA Voluntary Specification 2605-98 shall be met.
  2. Total dry film thickness shall be 1.2 mil (typ), but not less than 1.0 mil.
  3. Sample production parts shall have been tested and meet the following criteria:
    - a. Salt spray resistance per ASTM B 117 to 4,000 hours minimum rating of 7 on scribe line or cut edges
    - b. Color retention per ASTM D 2244, Section 6.3 – maximum 5.0 E units (Hunter) color change after minimum 10-yr exposure test per Section 7.9.1.1
    - c. Chalk resistance No. 8 rating for colors and No. 6 rating for whites per ASTM D 4214, Test method A (Method D 659) for ten (10) years per Section 7.9.1.1
    - d. Gloss Retention per ASTM D 523 shall be a minimum of 50% after 10-yr exposure test per Section 7.9.1.1
  4. Exposed fasteners for frame and ornamentation shall be painted to match the canopy.
- b. KYNAR 500® FINISH ON SHEET METAL
  1. Full Strength Kynar 500®/Hylar 5000 (contains a minimum 70% Kynar/Hylar polyvinylidene fluoride (PVDF) resins) premium fluoropolymer coating system of 1.0 (± 0.1) mil total dry film thickness. For additional protection a wash coat of 0.3 -0.4 mil dry film thickness is applied to the reverse side.

## PART 3 – EXECUTION

### 3.1 INSTALLERS STORAGE AND HANDLING

- A. Inspect delivered materials upon receipt to insure no damage has occurred during shipment.
- B. Protect canopy after arrival at destination from weather, sunlight, and damage.
- C. Installer shall store canopy elevated from soils to allow air circulation and to not introduce mold, fungi decay or insects to the product.
- D. Product must be handled with protective straps or padded forks if lifting with mechanical equipment. Use of chain or cable to lift product into place will not be accepted.

### 3.2 ERECTION

- A. Install canopy according to manufacturer's installation instructions, approved shop drawings, and these specifications.
- B. Remove any strippable film at time of installation.
- C. The general contractor shall be responsible for protecting the canopy from construction operations and abuse by other trades.

### 3.3 REPAIR

- A. Do not attempt any field changes without first contacting the manufacturer.

### **3.4 CLEANING**

- A. Prevent rust staining by immediately removing from finished surfaces any filings caused by drilling or cutting
- B. All dirt oil, grease, fingerprints, or other contaminants shall be removed after installation is completed.
- C. Follow manufacturer's recommended cleaning and maintenance instructions.

**END OF SECTION**