1995 CSI SECTION 08520 Aluminum Windows
2004 CSI SECTION 08 51 13 Aluminum Windows

Part 1 – General

1.01 Summary
- A. Section includes:
  1. Aluminum Windows

1.02 References
- A. American Architectural Manufacturers Association (AAMA)
- B. American Society for Testing and Materials (ASTM)
- C. Aluminum Association (AA)
- D. National Wood Window & Door Association (NWWDA)
- E. California Association of Window Manufacturers (CAWM)

1.03 System Description
- A. General: In addition to requirements shown or specified, comply with:
  1. Applicable provisions of AAMA Windows and Sliding Glass Doors Manual for design, materials, fabrication and installation of component parts.
- B. Design Requirements: Arcadia IPCV200 Series AP-AW80 (non-thermal) Heavy Commercial Concealed Ventilator Casement and Awning Windows, hinged compression sealed aluminum windows. Window system shall provide the appearance of an exterior butt-glazed system.
- C. Performance Requirements: Each assembly shall be tested by a recognized testing laboratory or agency in accordance with specified test methods.
  1. Conformance to C-AW80 and AP-AW80 specifications in AAMA/WDMA/CSA101/I.S.2./A440.08.
  2. Conformance to ASTM 1886/1996 (Small Missile & Large Missile) & AAMA/NWWDA 101/I I.S. 2-97 (Non Impact) - NAMI certified & Florida Building Code registered.
     - a. Air Infiltration: Accordance with ASTM E 283 at a static air pressure difference of 6.24 psf. Air infiltration shall not exceed 0.1 cfm per square foot.
     - b. Water Resistance: Accordance with ASTM E 331/ASTM E 547 at a static air pressure difference of 12 psf. No water leakage.
     - c. Uniform Load Structural: Operable when tested per ASTM E 330 at a static air pressure difference of 120 psf.
     - d. Component testing: Accordance with procedures described in AAMA/WDMA/CSA 101/I.S.2/A440.08
     - e. Forced Entry Resistance: Conform to CAWM 301-90.
     - f. Forced-entry resistance; Conform to ASTM F588 at a performance level 10 rating.
     - g. Thermal Movements: Allow thermal movement resulting from the following maximum change (range) in ambient temperature.
       - (a) 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.
     - h. Life cycle tested per AAMA 910

1.04 Quality Assurance
- A. Single Source Responsibility:
  1. Obtain entrances, storefronts, ribbon walls, window walls, curtain walls, window systems, and finish through one source from a single manufacturer.
- B. Provide test reports from AAMA accredited laboratories certifying the performances as specified in 1.03.

1.05 Warranty
- A. Warranted against failure and/or deterioration of metals due to manufacturing process for a period of two (2) years.

Part 2 – Products

2.01 Manufacturers
- A. Acceptable Manufacturers:
  1. Arcadia, Inc., 2301 East Vernon, Vernon, CA. Telephone 323/269-7300, Fax 323/269-7390.
- B. Acceptable Products:
  1. Arcadia Inc., IPCV200 Series (non-thermal) Heavy Commercial Concealed Ventilator Casement and Awning Windows, 2-inch depth.

2.02 Materials
- A. Extruded aluminum profiles shall be 6063-T6 alloy and temper (ASTM B221 G.S. 10A-T6).
- B. All framing members .125 minimum wall thickness.
- C. Heavy-duty four bar hinges stainless steel only, with asymmetric end caps, and adjustable limit stops. Lock and latches cast white bronze, US-25D finish.
- D. Weatherstrip EPDM bulb type conforming to ASTM D2000 AA515 and keyed into extruded grooves.
- E. Back glazing two-sided adhesive, 15 lbs./ft.^{3} density, polyethylene tape. Glazing wedges EPDM or Santoprene.
- F. Screens made of extruded aluminum frame and screened with either 18 x 14 aluminum or fiber mesh.

2.03 Finish
- A. Finish all exposed areas of aluminum and components as indicated.
  1. An Architectural Class II or I color anodic coating conforming with AA-M12C22A34/AA-M12C22A44.
     - a. Anodized finish color shall be Colornodic _____. (AB1 Light Champagne, AB2 Champagne, AB3 Light Bronze, AB4 Medium Bronze, AB5 Standard Medium Bronze, AB6 Dark Bronze, AB7 Standard Dark Bronze, AB8 Black.)

  (or)

  1. An Architectural Class II or I anodic coating conforming with AA-M12C22A31/AA-M12C22A41.
     - a. Anodize finish color shall be Colornodic (#11 Clear)

  (or)

  1. Fluorocarbon Coating: AAMA 2605.2.
     - a. Resin: 70% PVDF Kynar 500/Hylar 5000.
     - b. Substrate: cleaned and pretreated with chromium phosphate.
     - c. Primer: Manufacturer's standard resin base compatible coating. Dry film thickness.
       - (a) Extrusion: Minimum 0.20 mil.
     - d. Color Coat: 70% PVDF, dry film thickness.
       - (a) Extrusion: 0.20 mil.
     - e. Color: As selected by Architect.
     - f. Acceptable Coatings Manufacturers:
       - (a) PPG Industries, Inc.
       - (b) Valspar Corporation
       - (c) BASF

2.04 Fabrication
- A. Frame components mitered, reinforced extruded corner key, hydraulically crimped, and "cold welded."
- B. All ventilator extrusions tubular, each corner mitered, reinforced extruded corner key, hydraulically crimped, and "cold welded."
- C. All corners weather sealed with an elastomeric sealant.
- D. All glass shall be four-sided, structural glazed with silicone. Only factory glazing of the structural silicone shall be acceptable.

Part 3 – Execution

3.01 Examinations
- A. Examine conditions and verify substrate conditions are acceptable for product installation.

3.02 Installation
- A. Install in accordance with approved shop drawings and manufacturers installation instructions.

3.03 Field Quality Control
- A. Contractor's responsibility to make all necessary final adjustments to attain normal operation of each window and its mechanical hardware.

END OF SECTION