

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
- B. Related Sections:

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)

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 ULT-500 Series HS-HC70/AW50 (thermal/nonthermal) Heavy Commercial Sliding Windows 4-inch depth.
- C. Performance Requirements: Each assembly shall be tested by a recognized testing laboratory or agency in accordance with specified test methods.
 - 1. Conformance to HS-HC70/AW50 specifications in AAMA/NWWDA 101/I.S. 2-97.
 - a. Air Infiltration: Accordance with ASTM E 283.
 - b. Water Resistance: Accordance with ASTM E 331.

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 Architectural Products, Inc., 60 Bonner Street, Stamford, CT. 203-316-8000, fax 203-316-8200.
- B. Acceptable Products:
 - 1. Arcadia, ULT-500 Series (thermal/nonthermal) Heavy Commercial Sliding Windows, 4" depth.

2.02 Materials

- A. All windows shall be fabricated from aluminum extrusions of 6063-T6 alloy and temper with a minimum wall thickness of 0.100" for the sill member and a minimum of 0.072" for all other members, including frame, sash and optional sash dividers. The aluminum shall be free of defects which impair strength and appearance.
- B. Component parts and accessories shall be of aluminum alloy, stainless steel or non-metallic materials which will neither deteriorate nor promote corrosion.
- C. Thermal break barrier shall provide a continuous uninterrupted thermal separation around the entire perimeter of the frame and sash and shall not be bridged by any metal conductor at any point. Thermal barrier shall consist of a two-part, chemically curing, high-strength urethane.
- D. Sill shall have a full-length nylon track cap.
- E. Sash members shall have a minimum of 3/4" glass penetration into the aluminum to provide extra protection against "blow out" during high wind conditions.
- F. Operable sash shall be equipped with two steel tandem ball bearing (all stainless steel tandem rollers and housings optional).

- G. Locking device Adams-Rite MS+1847 stainless steel mortise lock operated by a custom flush pull handle set available in either black or metallic gray powder coat.
- H. Horizontal member shall have two contact points incorporating silicone treated woven pile with mylar center fins. Vertical members shall have four contact points of silicone treated woven pile with mylar center fins. All shall be held in integral extruded slots and secured to prevent movement or loss while operating sash.
- I. Fixed and/or sliding sash members shall be constructed to allow for either factory or field glazing. Sash glazing shall be accomplished using a "marine" style reusable, wraparound black flexible polyvinyl chloride material per commercial standard CS230-60 without the need for separate glazing beads or putty style bedding compounds. The glazing channel shall be provided with the unit for either 1" insulating glass or 1/4" single glass.
- J. All assembly and installation screws shall be 18-8 or 410 stainless steel.
- K. Screens made of extruded aluminum frame and screened with 18 x 16 fiber mesh.

2.03 Finish

- A. Finish all exposed areas of aluminum and components as indicated.
 - 1. Clear Anodized Class II (204 R1-0.4-0.7 mils thick) meeting AAMA 607.1.
- (or) 1. Dark Bronze Anodized Class 1 (0.7 mils thick) meeting AAMA 608.1.
- (or) 1. Standard finish is White PPG UC-71533 – baked-on enamel – polycron – AAMA 2603.2.
- (or) 1. Standard finish is Quaker Bronze PPG UC-72867 – baked-on enamel – polycron – AAMA 2603.2.
- (or) 1. Custom colors in a baked-on enamel or Duranar finish are also available – AAMA 2604.2 and AAMA 2605.2.

2.04 Fabrication

- A. Primary frame must be a minimum of 4" deep.
- B. Frame corner joint shall be secured with two stainless steel screws and must be back caulked under the frame jambs to insure a weather-resistant seal.
- C. Profile of the fixed jamb and the latching jamb shall include two weather-stripped pockets to receive the fixed and latching stiles.
- D. Fixed and sliding panels shall have a nominal 1-1/2" depth and shall have overlapped joints as well as the mortise type to provide strong interlocking, mechanically fastened hairline joints.
- E. Interlockers and latching stiles shall be heavy gauge tubular sections assuring precise alignment and to resist twisting under load conditions.

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