

1995 CSI SECTION 08580 SOUND CONTROL WINDOWS
2004 CSI SECTION 08 56 73 SOUND CONTROL WINDOWS

Part 1 – General

1.01 Summary

- A. Section includes:
 - 1. Extruded aluminum sliding windows
- B. Related Sections:

1.02 References

- A. ASTM E90-Airborne sound transmission loss. 1/3 octave band data.
- B. ASTM B221-Aluminum-alloy extruded bar, rod, wire, shape, and tube.
- C. ASTM E283-Rate of air leakage through exterior sliding doors, curtain walls, and doors.
- D. ASTM E331-Test method for water penetration by uniform static air pressure difference.
- E. ASTM E413-Classification for rating sound insulation.
- F. ASTM E1425-Determining the acoustical performance of exterior sliding doors and doors.
- G. ASTM E376-Method of measuring coating thickness.

1.01 System Description

- A. System 52 Acoustical Sliding Windows, single or double hung with tilt-out operability for cleaning. Window shall be able to accommodate glazing for STC 37 and thermal break in a single frame with frame depth of 3 1/4" inches (83 mm) at the base. Frame shall have integral screen channel.
- B. Windows shall be block frame and must be factory glazed.
- C. Performance Requirements: All performance criteria and ratings in this section shall be for a primary sliding glass window alone without the use of a secondary window.
 - 1. Air Infiltration: Accordance with ASTM E283.
 - 2. Water Resistance: Accordance with ASTM E331.
 - 3. All windows must meet or exceed the minimum requirements of performance class C-4Q for the design load specified in accordance with ANSI/AAMA 101-88 and the requirements for STC 37 when tested per ASTM E90 and evaluated by E413.
 - 4. The entire window assembly (framing members, glass, and integral components) shall meet or exceed the value listed (STC 37) when measured in accordance to ASTM E90 and E413. The sound transmission loss shall meet the following allowable deviations.
 - a. Three non-continuous 1/3 octave band values may deviate below the specified values as much as three decibels, subject to the provision in 2.
 - b. The summation of deviation of decibels from the specified values must not exceed six decibels.

1.01 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.

1.02 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., 4620 Andrews Street, North Las Vegas, NV 89081 702/644-4688. www.arcadiainc.com
- B. Acceptable Products:
 - 1. Arcadia Inc., 52 Series single / double hung Acoustical Window, with 3 1/4" frame depth as designed by window technologies Inc.

2.02 Materials

- A. All frame and sash extrusions shall be fabricated from aluminum extrusions of 6063-T6 alloy and temper with a

minimum wall thickness of 0.062 inch. The aluminum shall be free of defects which impair strength and appearance.

- B. Window components shall be designed and assembled so as to provide a continuous exterior water deterrent.
- C. Windows shall be glazed in glazing channels with extruded wrap-around gasket. The design of the window shall facilitate removal of sash panels for re-glazing.
- D. Units shall be glazed utilizing laminates and an air space as required for the specified sound transmission loss in decibels.
- E. The acoustical performance and rating of the glass and glazing shall be as a complete glazing system installed in the aluminum frame with the weather-stripping and seals of that system. Acoustic test report data for the glass alone shall not be acceptable.

2.01 Finish

- 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

2.02 Fabrication

- A. Primary frame must be a minimum of 3 1/4" deep.
- B. Corner joinery: All frames shall be mechanically fastened cadmium plated, zinc-plated or stainless steel screws and provide rigid, even, and tight joinery. Sash shall be removable for replacement of glazing materials. Corners shall be sealed with elastomeric sealant.
- C. Fabricate windows allowing for minimum clearances and spacing around perimeter to allow for adjustment to plumb, level, true to line installation.
- D. Weep holes shall direct moisture drainage to the exterior.
- E. Factory-glaze windows with manufacturer's glazing seals, seal all gaps. Job site glazing shall not be allowed.
- F. Windows shall incorporate adjustable rollers with stainless steel ball bearings and nylon tires for smooth horizontal operation.
- G. Weather-stripping shall be seamless elastomeric or embossed non-vinyl skin over a closed cell foam and shall be keyed into extruded slots.

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



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