

SECTION 08348 SOUND CONTROL DOORS

Part 1 – General

1.01 Summary

- A. Section includes:
 1. Acoustical Aluminum Glass Doors and Frames
- 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.

1.03 System Description

- A. System 3000 Acoustical Glass Door with 1 ¾ inches in thickness and frame depth of 5 1/2 inches (114 mm).
- B. Performance Requirements: All performance criteria and ratings in this section shall be for a primary glass door alone without the use of a secondary door.
 1. Air Infiltration: Accordance with ASTM E283.
 2. Water Resistance: Accordance with ASTM E331.
 3. All aluminum glass doors must meet or exceed the minimum requirements of performance class HC-40 for the design load specified in accordance with ANSI/AAMA 101-88 and the requirements for STC 40 when tested per ASTM E90 and evaluated by E413.
 4. The entire sliding door assembly (framing members, glass, and integral components) shall meet or exceed the value listed (STC 40) 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.

1.04 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., 4620 Andrews Street, North Las Vegas, NV 89081. (702) 644-4668 www.arcadiainc.com
- B. Acceptable Products:
 1. System 3000 Aluminum Acoustical Glass Doors, 5-1/2" depth as designed by Window Technologies, Inc.

2.02 Materials

- A. Extruded Aluminum: 6063-T5 alloy and temper with a minimum wall thickness of 0.125 inch for all frame and sash

- B. extrusions except door rails and stiles, which shall have a nominal metal thickness of 0.110 inch.
- C. Glass shall meet or exceed the requirements of ASTM C-1048 (CAN/CGSB 12.3). In glazing follow the recommendations of FGMA, AAMA, SIGMA, and IGMAC. Cushion the glass with setting blocks and support the glass with gaskets in such a way as to prevent point loads and uneven or excessive pressures.
- D. 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.

2.03 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 anodic II or 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: 1.0 mil.
 - e. Color: As selected by Architect.

2.04 Fabrication

- A. Door, frame, and hardware shall be designed and assembled to provide a continuous exterior water deterrent.
- B. Door corners shall be mechanically fastened and welded to prevent movement of the door joinery.
- C. The door frame and all door rails and stiles shall be filled with MinLead composite, which shall be secured and sealed with expanding foam.
- D. Door lite glass shall be glazed with extruded snap-on glazing stops with a keyed slot for extruded glazing gasket. The design of the door shall facilitate removal of sash panels for re-glazing. In the storefront framing, no exposed fasteners are allowed.
- E. Fabricate frames allowing for minimum clearances and spacing around perimeter to allow for adjustment to plumb, level, true to line installation.

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 door and its mechanical hardware.

END OF SECTION