SilentGuard® Series Vinyl Patio Doors 3-Part Guide Specification

SECTION 08 34 73

(MasterFormat 1995 Edition: 08260)

SOUND CONTROL VINYL SLIDING GLASS DOORS

THIS SPECIFICATION SECTION HAS BEEN PREPARED TO ASSIST DESIGN PROFESSIONAL IN THE PREPARATION OF PROJECT OR OFFICE MASTER SPECIFICATIONS. IT FOLLOWS GUIDELINES ESTABLISHED BY THE CONSTRUCTION SPECIFICATIONS INSTITUTE, AND THEREFORE MAY BE USED WITH MOST MASTER SPECIFICATION SYSTEMS WITH MINOR EDITING.

EDIT CAREFULLY TO SUIT PROJECT REQUIREMENTS. MODIFY AS NECESSARY AND DELETE ITEMS THAT ARE NOT APPLICABLE. VERIFY THAT REFERENCED SECTION NUMBERS AND TITLES ARE CORRECT. (NUMBERS AND TITLES REFERENCED ARE BASED ON *MASTERFORMAT*, 2004 EDITION).

THIS SECTION ASSUMES THE PROJECT MANUAL WILL CONTAIN COMPLETE DIVISION 1 DOCUMENTS INCLUDING 01 25 13 – PRODUCT SUBSTITUTION PROCEDURES, SECTIONS 01 33 00 – SUBMITTAL PROCEDURES, 01 62 00 – PRODUCT OPTIONS, 01 66 00 – PRODUCT STORAGE AND HANDLING REQUIREMENTS, 01 74 00 – CLEANING AND WASTE MANAGEMENT, 01 77 00 – CLOSEOUT PROCEDURES, AND 01 78 00 – CLOSEOUT SUBMITTALS. CLOSE COORDINATION WITH DIVISION 1 SECTIONS IS REQUIRED. IF THE PROJECT MANUAL DOES NOT CONTAIN THESE SECTIONS, ADDITIONAL INFORMATION SHOULD BE INCLUDED UNDER THE APPROPRIATE ARTICLES.

THIS IS AN OPEN PROPRIETARY SPECIFICATION ALLOWING USERS THE OPTION OF APPROVING OTHER MANUFACTURERS THAT COMPLY WITH THE CRITERIA SPECIFIED HEREIN.

NOTES TO THE SPECIFIER ARE CONTAINED IN BOXES AND SHOULD BE DELETED FROM FINAL COPY.

OPTIONAL ITEMS REQUIRING SELECTION BY THE SPECIFIER ARE ENCLOSED WITH BRACKETS, E.G. [35] [40] [45]. MAKE APPROPRIATE SELECTIONS AND DELETE OTHERS.

ITEMS REQUIRING ADDITIONAL INFORMATION ARE UNDERLINED BLANK SPACES, E.G. _____.

OPTIONAL PARAGRAPHS REQUIRING SELECTION OF ONE OF THE OPTIONS ARE SEPARATED BY “OR” WITHIN A BOX, E.G.

OR

BOLD FACE TYPE IDENTIFIES OPTIONAL PARAGRAPHS AND FEATURES THAT MAY BE INCLUDED OR DELETED DEPENDING ON PROJECT REQUIREMENTS. CONVERT THE BOLD FACE TYPE TO REGULAR TYPE WHEN INCLUDING THESE PARAGRAPHS OR FEATURES.

REVISE FOOTER TO SUIT PROJECT/OFFICE REQUIREMENTS.

ELECTRONIC VERSIONS OF THIS SPECIFICATION UTILIZE AUTOMATIC PARAGRAPH NUMBERING.

WHEN EDITING IS COMPLETE, DELETE ALL TEXT ON THIS PAGE, THEN REMOVE THE SECTION BREAK AT THE TOP OF THE NEXT PAGE TO REMOVE THIS PAGE FROM THE DOCUMENT.

SPECIFICATION BEGINS ON THE FOLLOWING PAGE.

PART 1 – GENERAL

1.01 SUMMARY

A. Section Includes: Tubular extruded poly vinyl chloride (PVC) framed sound control rated sliding glass doors of the following type:
   1. Sliding glass doors.

B. Related Sections:

INSERT APPROPRIATE SECTION NUMBERS AND TITLES BELOW FOR WINDOW FLASHING AND INSTALLATION SEALANT.

2. __ __ __ **-** _____**.**
3. __ __ __ **-** _____**.**

IF VINYL WINDOWS ARE USED IN CONJUNCTION WITH THIS SECTION, MANUFACTURER RECOMMENDS INSULATED GLAZING UNIT CONSIST OF HURRICANE DEBRIS IMPACT-RESISTANT LAMINATED GLASS.

4. 08 56 73 – Sound Control Vinyl Windows.

INCLUDE APPROPRIATE LANGUAGE BELOW IF PRODUCTS SPECIFIED IN THIS SECTION ARE TO BE BID AS ALTERNATES. OTHERWISE DELETE FOLLOWING PARAGRAPH.

C. Alternate proposals:
   1. Reference Section 01 23 00 – Alternates.

1.02 REFERENCES

A. AAMA – American Architectural Manufacturers Association
   1. AAMA/WDMA/CSA 101/I.S.2/A440 – Standard/Specification for Windows, Doors and Unit Skylights
   2. AAMA 303 – Voluntary Specification for rigid Polyvinyl Chloride (PVC) Exterior Profiles
   3. AAMA 701 – Voluntary Specification for Pile Weatherstripping and Replaceable Fenestration Weatherseals
   4. AAMA 2400 – Standard Practice for Installation of Windows with a Mounting Flange in Stud Frame Construction

B. FMA – Fenestration Manufacturers Association
   1. FMA/AAMA 100 – Standard Practice for the Installation of Windows with Flanges or Mounting Fins in Wood Frame Construction

C. ANSI – American National Standards Institute
   1. ANSI Z97.1 – American National Standard for Safety Glazing Materials Used in Buildings

D. ASTM – American Society for Testing and Materials
   1. ASTM C 1036 – Standard Specification for Flat Glass
   2. ASTM C 1172 – Standard Specification for Laminated Architectural Flat Glass
   3. ASTM D 4216 – Standard Specification for Rigid Poly Vinyl Chloride (PVC) and Related PVC and Chlorinated Poly Vinyl Chloride (CPVC) Building Products Compounds
   4. ASTM E 90 – Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
   5. ASTM E 283 – Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen

6. ASTM E 330 – Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference
7. ASTM E 331 – Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
8. ASTM E 413 – Classification for Rating Sound Insulation
9. ASTM E 547 – Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Difference
10. ASTM E 774 – Standard Specification for the Classification of the Durability of Sealed Insulating Glass Units
11. ASTM E 1300 – Standard Practice for Determining Load Resistance of Glass in Buildings
12. ASTM E 1332 – Standard Classification for Determination of Outdoor-Indoor Transmission Class
13. ASTM E 2112 – Standard Practice for Installation of Exterior Windows, Doors and Skylights
14. ASTM E 2190 – Standard Specification for Insulating Glass Unit Performance and Evaluation
15. ASTM F 842 – Standard Test Methods for Measuring the Forced Entry Resistance of Sliding Door Assemblies, Excluding Glazing Impact

F. NFRC – National Fenestration Rating Council
1. NFRC 100 – Procedure for Determining Fenestration Product U-Factors

1.03 SUBMITTALS

A. Reference Section 01 33 00 – Submittal Procedures - Submit following items:
1. Product Data: Provide manufacturer's standard details and catalog data demonstrating compliance with referenced standards.
2. Shop Drawings: Include window schedule detailing sizes, glazing types, muntin types and designs, window elevations, sections and details for each project condition, and multiple window assembly details.
3. Selection Samples:
a. For each finish product specified, two complete sets of color samples: Minimum 1 inch by 4 inch (25 mm by 100 mm) samples of PVC with integral color representing manufacturer's full range of available colors and patterns.
b. Glass, showing available tint colors.
4. Verification Samples:
a. For each finish specified, two color samples: Minimum 1 inch by 4 inch (25 mm by 100 mm) samples of PVC with integral color, representing actual product, color, and patterns.
b. Glass showing specified tint colors
5. Quality Assurance/Control Submittals:
a. Qualifications: Proof of manufacturer's qualifications.
b. U-Factor, solar heat gain coefficient and structural rating charts required for AAMA and NFRC labeling requirements.
c. Manufacturers' Installation Recommendations.

B. Closeout Submittals: Reference Section 01 78 00 – Closeout Submittals: submit following items:
1. Temporary window labels marked to identify windows that labels were applied to.
2. Maintenance instructions.
3. Special Warranties.

1.04 QUALITY ASSURANCE

A. Overall Standards: Comply with AAMA/WDMA/CSA 101/I.S.2/A440, except as otherwise noted herein.
B. Qualifications:
1. Manufacturer Qualifications:
a. Minimum five years experience in producing vinyl doors of the type(s) specified.
b. Participant in good standing in nationally recognized certification and labeling program.

c. Member National Fenestration Ratings Council (NFRC)

INSERT LOCAL REGULATORY REQUIREMENTS BELOW.

C. Regulatory Requirements:

D. Certifications for insulated glass doors:
1. AAMA: Doors shall be Gold Label certified with label attached to frame per AAMA requirements.
2. NFRC: Doors shall be NFRC certified with temporary U-factor label applied to glass and an NFRC tab added to permanent label.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Reference Section 01 66 00 – Product Storage and Handling Requirements.

B. Follow manufacturer's instructions.

1.06 WARRANTY

SELECT "RESIDENTIAL' WARRANTY BELOW FOR OWNER OCCUPIED SINGLE FAMILY RESIDENTIAL AND OWNER OCCUPIED CONDOMINIUM PROJECTS. SELECT "COMMERCIAL" WARRANTY FOR NON-OWNER OCCUPIED CONDOMINIUMS, COMMERCIAL, AND APARTMENT PROJECTS.

A. Residential Special Warranty:
1. Warranty unit components against defects in materials and workmanship to original owner for life (refer to manufacturer's written warranty for details).
2. Warranty insulated glass units against failure to original owner for 25 years (refer to manufacturer's written warranty for details).
3. Warranty to include the cost of parts for the life of the warranty and the cost of labor for one year from the date of purchase (refer to manufacturer's written warranty for details).

OR

B. Commercial Special Warranty:
1. Warranty unit components against defects in materials and workmanship for ten years (refer to manufacturer's written warranty for details).
2. Warranty insulated glass units against failure for ten years (refer to manufacturer's written warranty for details).
3. Warranty to include the cost of parts for the life of the warranty and excludes labor (refer to manufacturer's written warranty for details).

PART 2 – PRODUCTS

2.01 MANUFACTURER

A. Atrium Companies, Inc.
9001 Ambassador Row
Dallas, TX 75247

Tel: (800) 375-5570
(303) 375-0570
Fax: (303) 375-1212
Website: http://www.silent-guard.com/

INSERT NAME, ADDRESS AND PHONE NUMBERS OF MANUFACTURER'S REPRESENTATIVE BELOW.

1. Manufacturer's Representative:
_____ Tel: _____
_____ Fax: _____
_____ E-mail: _____

B. Door Series: Silent Guard Series 7400.

C. Substitutions: Reference Section 01 25 13 – Product Substitution Procedures.

2.02 MATERIALS

A. Vinyl: Integral color PVC compound containing impact-resistant solid plasticizer, titanium dioxide UV inhibitor, and surface and color stabilizers.
   1. Comply with AAMA 303, ASTM D4216 and AAMA/WDMA/CSA 101/I.S. 2/A440.

VERIFY THAT DOOR FLASHING MATERIAL AND INSTALLATION SEALANT IS SPECIFIED IN APPROPRIATE SECTIONS.

2.03 GENERAL PERFORMANCE REQUIREMENTS

A. Thermal Performance: Comply with NFRC 100.

B. Air Leakage Resistance, Water Penetration Resistance, Structural Loading: Comply with AAMA/WDMA/CSA 101/I.S.2/A440.

C. Forced Entry Resistance: Comply with ASTM F 842.

D. Acoustical Performance: Comply with ASTM E 90, ASTM E 413 and ASTM E 1332.

2.04 SLIDING DOOR TYPES

SELECT FOLLOWING DOOR TYPES AND RELATED NAIL FIN/MOUNTING STYLE BASED ON PROJECT REQUIREMENTS. DELETE DOOR TYPES NOT USED.

A. Standard Sliding Door (OX or XO configuration) – Model 7400:
   1. Frame: Minimum 6.0625 inch (154 mm) deep, multi-chambered rigid vinyl (PVC) profile and containing an integral, 1.50 inch wide mounting flange located 1.00 inch from exterior face of frame and a 3.313 inch factory installed, rigid vinyl (PVC) sill extender.
   2. Operable and Fixed Sash Frame: Minimum 1.919 inch (49 mm) deep, multi-chambered rigid vinyl (PVC) profile.
   3. Uniform Structural Load Pressure per ASTM E 330: 90.23 psf minimum
   4. Water Penetration Resistance per ASTM E 547: 9.19 psf minimum
   5. Air Leakage Resistance per ASTM E283 (1.57psf): 0.01 cfm/ft^2 maximum
   6. Design Pressure: +/- 60 up to 96 inches by 96 inches (244 cm by 244 cm).
   7. Performance Grade: Commercial, SD-C60.
   8. Acoustical Performance per ASTM E90:
      a. STC: 38 minimum
      c. OITC: 32 minimum
   9. Forced Entry Resistance per ASTM F 842: Grade 10. No entry.
   10. Hardware:
      a. Handle and Lock: Inside and outside pull with lever operated 2-point jamb lock and corresponding keeper.
      b. Keyed exterior cylinder lock, Schlage compatible keyway.
      c. Rollers: Two sets of dual stainless steel, 2.50 inch (64 mm) diameter rollers on raised monorail track.
   11. Weatherstripping:
      a. Fin seal high density polypropylene pile with Mylar fin, minimum 0.260 inches high, kerf-applied to head, sill and jamb stile of fixed sash.

b. Foam filled bulb gasket kerf-applied around head, sill and lock stile of operable sash (minimum 2 rows).

2.05 ACCESSORIES

A. Block frame configuration: Nail fin removed for replacement applications.

2.06 GLASS AND GLAZING

A. Acoustical Sealed Insulating Glass:
1. Glass and glazing shall comply with ANSI Z97.1, ASTM C 1036, E 774 or E 2190 (Class A), C1172 and E 1300 as required and shall consist of a 1.3125 inch overall thickness insulating glass unit comprised of 1 piece of 0.250 inch laminated glass and 1 piece of 0.3125 inch laminated glass separated by a 0.750 inch air space
2. Glazing Type: [Clear/Clear Laminated] [Low-E/Clear Laminated] [Low-E/Clear Laminated, argon gas filled].
3. Spacer Bar: Roll-formed aluminum.

2.07 DIVIDED LITE GRIDS

VERIFY THAT DESIRED GRID PATTERNS, IF ANY, ARE SHOWN ON THE DRAWINGS. CERTAIN GRID PATTERNS MAY NOT BE AVAILABLE WITH ONE OR THE OTHER BAR TYPES IN THE FOLLOWING PARAGRAPH – CONSULT ATRIUM FOR UNUSUAL DESIGN APPLICATIONS.

A. [0.625 inch (16 mm) wide flat] [0.625 inch (16 mm) wide sculptured] [1 inch (25 mm) wide sculptured] metal bars color matched to frame and sash.

B. Grids shall be contained within the airspace of insulated glass units.

2.08 INSECT SCREENS

A. Sliding Screen Door:
1. Frame: Extruded aluminum, 1 inch by 1.75 inches (25 mm by 44 mm).
2. Hardware:
a. Lock: Lever action type.
b. Rollers: 2 adjustable nylon rollers at top, and 2 adjustable nylon rollers at bottom.
c. Screen Cloth: Charcoal colored fiberglass mesh secured in frame by vinyl spline.

2.09 FABRICATION

A. Fabricate frames and sashes with mitered and fusion welded corners and joints. Trim and finish corners and welds to match adjacent surfaces.

B. Provide concealed metal reinforcement in sash frames for attaching lock mechanism.

C. Factory exterior glaze with snap-on PVC glazing bead stops matching sash and frame finish, except where field glazing is required due to large window unit dimensions. Units shall be reglazable without dismantling sash framing.

2.10 FINISH

A. Frame and Sash Color: [White] [Almond].

B. Color match screen frame to frame and sash color.

2.11 SOURCE QUALITY CONTROL

A. Inspect windows in accordance with manufacturer's Quality Control Program as required by the applicable certification program.

PART 3 – EXECUTION

3.01 EXAMINATION

A. Examine openings in which doors will be installed.
   1. Verify that sill is flat and level and jambs are plumb.
   2. Verify that fasteners in framed walls are fully driven and will not interfere with door installation.

B. Coordinate with responsible entity to correct unsatisfactory conditions.

C. Commencement of work by installer is acceptance of substrate conditions.

3.02 INSTALLATION

COMPLY WITH FASTENER SIZE, LENGTH, PLACEMENT SCHEDULE AND DEPTH OF FRAMING PENETRATION AS LABELED ON EACH WINDOW. MASONRY WALLS AND UNUSUAL CONDITIONS MAY REQUIRE ADDITOINAL INFORMATION IN THIS ARTICLE.

A. Assemble and install doors in framed walls in accordance with manufacturer's recommendations, AAMA 2400, ASTM E 2112 or AAMA/FMA 100 and all applicable building codes.

B. Do not remove temporary labels.

C. Install screen door on operable panel.

3.03 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

3.04 ADJUSTING

A. Adjust operating sash and hardware for smooth operation and tight fit with weather-stripping.

B. Adjust screen door and screen door hardware for smooth operation.

3.05 CLEANING

A. Reference Section 01 74 00 – Cleaning and Waste Management.

B. Remove temporary labels and retain for Closeout Submittals.

C. Clean soiled surfaces and glass using a mild detergent and warm water solution with soft, clean cloth.

END OF SECTION

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