

SERIES 6000 SPECIFICATION GUIDE

HEAVY COMMERCIAL NARROW STILE SLIDING GLASS DOORS

For non impact glazing applications

SECTION 08640

PART 1 – GENERAL

1.01 SECTION INCLUDES:

- A. Material: Aluminum architectural sliding glass doors as shown on the drawings and specified in this section.
- B. Installation: Labor, tools, and materials needed to install doors complete with hardware and related components.
- C. Glass and glazing.

1.02 PRODUCTS FURNISHED BUT NOT INSTALLED:

[enter description]

1.03 PRODUCTS INSTALLED BUT NOT FURNISHED:

[enter description]

1.04 RELATED SECTIONS:

- A. Section 07900 – Sealants

1.05 REFERENCES:

- A. AAMA – American Architectural Manufacturers Association.
 - 1. AAMA/NWWDA 101/1.S.2-97 "Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows."
 - 2. AAMA 502-90 "Voluntary Specifications for Field Testing of Windows and Sliding Glass Doors."
 - 3. AAMA 611-98 "Voluntary Specifications for Anodized Architectural Aluminum."
 - 4. AAMA 701-92 "Voluntary Specifications for Pile Weatherstripping."
 - 5. AAMA 800-92 "Voluntary Specifications and Test Methods for Sealants."
 - 6. AAMA 906-96 "Voluntary Specifications for Sliding Glass Door Roller Assemblies."
 - 7. AAMA 2603-98 "Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions & Panels."
 - 8. AAMA 2604-98 "Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions & Panels."
 - 9. AAMA 2605-98 "Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions & Panels."
 - 10. AAMA CW-10-97 "Care & Handling of Architectural Aluminum from Shop to Site"
 - 11. AAMA/NWWDA 1303.5 Forced Entry
- B. ASTM – American Society for Testing Materials:
 - 1. ASTM E 283 "Standard Test Method for Rate of Air Leakage Through Exterior Windows Curtains Walls, and Doors."
 - 2. ASTM E 330 "Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference."
 - 3. ASTM E 331 "Standard Test Method for Water Penetration for Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference."

4. ASTM E 547 "Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Cyclic Static Air Pressure Differential."
5. ASTM E 774 "Specification for Sealed Insulated Glass Units."
6. ASTM E 987 "Standard Test Method for Deglazing of Exterior Windows, Curtain Walls, and Doors."
7. ASTM E 1300 Glass Loads

1.06 SYSTEMS DESCRIPTION:

- A. AAMA DESIGNATION: SGD-HC
 5'x 8' Panel size, tested at a system size of 15' x 8' Rating: SGD-HC45
 Rating w/reinforcing: SGD-HC50
 5'x 10' Panel size, tested in a pocket door, 90
 degree system, 40 feet wide by 10 feet high. Rating: SGD-HC35
 Rating w/ reinforcing: SGD-HC45
- B. Doors: Aluminum extrusions 6063-T6 alloy and temper, minimum wall thickness .070". Available with sill depths from 5 and 1/8" with no screen option to 6 and 5/8" for the two track door with a screen option, up to 9 and 7/8" for the 4 track doors. The drawings depict the sill depth and the method of installation illustrating one or more of the following frame configurations; flush frame (equal leg), flange frame of 5/8" or fin frame of 1-1/2". The panels are to have 2-3/4" wide vertical lock stiles and 3" top and bottom rails. The panel frame depth shall be 1-3/4".
- C. Configurations: Sliding glass door operating and fixed panels are depicted on the drawings. Directional arrows and/or X for operable and O for fixed may designate operation.
- D. Glazing: Panels are dry glazed with vinyl cushioning seal. Glazing stops accept insulated glass at 3/4 inch or single glazed lites of 3/16 inch or 1/4 inch. See glass description in paragraph 2.04.

1.07 PERFORMANCE REQUIREMENTS:

- A. Conformance to SGD-HC specifications in AAMA/NWWDA 101/I.S.2-97 when tests are performed on the prescribed minimum 4'10" panel width x 7'10" frame height test size with the following results:
1. Air infiltration maximum .34 cfm/square foot when tested per ASTM E 239-91 at a static air pressure difference of 6.24 psf. (equal to 50 mph wind.)
 2. Air infiltration measured on independent laboratory tests of WinDoor SGD are .08 at 6.24 psf.
 3. Water penetration: No uncontrolled water leakage when tested per ASTM E 547-93 and ASTM E 331-93 at a static air pressure differences of:
 Riser Height 1.50" = 5.25 psf field performance and 6.75 psf in lab tests.
 Riser Height 2.25" = 7.50 psf field performance and 9.0 psf in lab tests.
 Riser Height 3.0 " = 10.5 psf field performance and 12.0 psf in lab tests.
 Riser Height 3.50" = 12.0 psf field performance and 15.0 psf in lab tests.
 Riser Height 4.25" = 16.0 psf field performance and 18.75 psf in lab tests.

4. Uniform Structural Load: No glass breakage, permanent damage to fasteners or hardware, or any other damage which would cause the door to be inoperable, and as tested per ASTM E 330-90 at a static air pressure difference of:
 - Panel Size: 2'6" x 6'8" + and - 188 psf and a Design Pressure of 125
 - Panel Size: 3' x 6'8" + and - 164 psf and a Design Pressure of 109
 - Panel Size: 3' x 8' + and - 131 psf and a Design Pressure of 87
 - Panel Size: 4' x 8' + and - 105 psf and a Design Pressure of 70
 - Panel Size: 4' x 9' + and - 90 psf and a Design Pressure of 60
 - Panel Size: 4' x 10' + and - 80 psf and a Design Pressure of 63
 - Panel Size: 5' x 8' + and - 92 psf and a Design Pressure of 61
 - Panel Size: 5' x 10' + and - 68 psf and a Design Pressure of 45
5. The panel sizes listed above are for reference only in determining the Design Pressures that are available. Job specific design pressures are provided on the drawings for this project and are the responsibility of the Engineer of Record. Manufacturers providing products for this project must provide certified test reports showing compliance with the structural requirements.

1.08 SUBMITTALS:

- A. Shop drawings: Door location chart; typical sliding glass door elevations; detail of assemblies; hardware; and glazing details for factory glazed panels. [job specific engineering as required].
- B. Product data: Manufacturers specifications and test reports from an AAMA-accredited laboratory.
- C. Samples: Specified finish for aluminum and other samples as requested.

1.09 QUALITY ASSURANCE:

- A. All sliding glass doors shall be Series 6000 as manufactured by WinDoor, Inc., 7500 Amsterdam Drive, Orlando, Florida 32832, Tel: 407.481.8400, Fax: 407.481.0505, or approved equal.
- B. Other manufactures desiring approval shall furnish a sample door representing the bid door for approval up to ten days prior to bid opening. Submit valid test reports from an AAMA-accredited laboratory confirming to test results in paragraph 1.07.
- C. Acceptance will be by written addendum only, as verbal approvals will not be allowed.
- D. Submit bid on pre-qualified products. Bidder must identify manufacturer and model of product on which the bid is based.
- E. Manufacturer's Warranties:
 1. Doors: Warrant for three (3) years against defects in materials or workmanship under normal use.
 2. Insulating glass units: Warrant seal for five (5) years against visual obstruction from film formation or moisture collection between glass surfaces, excluding that caused by glass breakage or abuse.
 3. Paint finish: Electrostatic paint finish meeting AAMA2603, 2604 and 2605-98, shall be warranted as listed in paragraph 4 below. Finishes as provided by PPG, Inc. Duracron, Acrynar and Duranar in std. white and bronze or any color to be selected by architect. Warranties against chip, crack, check, peel, chalk, or fade as noted below.

4.	AAMA 2603	Std. Warrantee, 5 years	In coastal locations, 1 year
	AAMA 2604	Std. Warrantee, 10 years	In coastal locations, 5 years
	AAMA 2605	Std. Warrantee, 15 years	In coastal locations, 10 years

PART 2 – PRODUCTS

2.01 MANUFACTURES:

- A. WinDoor Series 6000 Narrow stile Aluminum Sliding Glass Door
- B. Other acceptable manufacturers
(enter names as selected)

2.02 MATERIALS:

- A. Aluminum Extrusions: 6063-T6 alloy and temper with minimum wall thickness of .070" at frame and panel members, trim (covers) .062".
- B. Note Well: Trim – Head and Jambs: Snap in covers shall conceal all anchor fasteners.
- C. Operating panel hardware: Two stainless steel tandem wheel housings conforming to AAMA 906-96: each housing contains two adjustable 1-5/8" Delrin and stainless steel wheels. Dual point adjustable mortise lock with interior latch lever and powder coated white or bronze, interior and exterior pull handles. Optional availability with key cylinder in exterior pull handle if called out in the notes section of the drawing.
- D. Weatherstripping: Secured in extruded ports concealed in panel perimeters conforming to AAMA 701-92.
- E. Screens: Exterior mount extruded hollow aluminum sections with depth of 1-1/4" x 2-5/8" wide. Two stainless steel wheel housings, each housing containing one adjustable 1-5/8" Delron wheel.

2.03 FABRICATION:

- A. Frame: Head and sill field fastened to jambs with stainless steel screws (two per corner). Sill to jamb corners field sealed.
- B. Sill protection: Clear anodized sill pan, sill insert, and riser (Riser can be omitted to meet ADA requirements).
- C. Water control: Sill to be two piece tank design, all sill anchor fasteners to be concealed in the tank with the proper application of sealant on the fastener heads. Weep slots and drain slots allow water to drain by gravity and resist wind-driven water (see sill designs and drawings).
- D. Panels: Vertical panel stiles coped and fastened to horizontal panel rails with a telescopic design joint secured with two stainless steel screws per panel corner.
- E. **Note Well:** For integrity of design, panels shall employ dual stile interlocks with two weatherstripped contacts. Products employing the flying buttress design will not be acceptable. External I-Beam or Tube structural reinforcement will not be allowed. All panel parts and screen parts must not extend past the master frame members.

2.04 INSULATING GLASS UNIT or SINGLE GLAZED CONFIGURATION:

- A. Exterior Glass Lite:
 - 1. Thickness, 3/16 inch or 1/4 inch
 - 2. Clear, Bronze, Gray, Green, Blue or other _____
 - 3. Tempered glass to meet Z97.1

4. Low Emissivity Coating on surface #2, (inside airspace of exterior lite.) pyrolytic application. Note: Application of Low E on this lite of glass excludes application on interior lite.
- B. Interior Glass Lite:
 1. Thickness, 3/16 inch or 1/4 inch
 2. Clear
 3. Tempered glass to meet ANSI Z97.1 or CPSC 16 CFR 1201
 4. Low Emissivity Coating on surface #3, (inside airspace of interior lite.) pyrolytic application. Note: Application of Low E on this lite of glass excludes application on exterior lite.
- C. Performance:
 1. Seal durability: conformance to ASTM E 774.92
 2. Meets IGCC-CBA rating
- D. Single Glazed Configuration:
 - a 1/4 inch clear, bronze, gray, green, blue or other _____
 - b Tempered glass to meet ANSI Z97.1 or CPSC 16 CFR 1201

2.05 FINISH ON ALUMINUM EXTRUSIONS:

- A. Application: On clean extrusions free from serious surface blemishes on exposed surfaces visible when installed product's operating vent is closed.
- B. Coating: PPG Duracron, standard white or bronze, meeting AAMA 2603-98.

PART 3 – EXECUTION

3.01 PREPERATION:

- A. Prepare openings to be in tolerance, plumb, level, provide for secure anchoring, and in accordance with approved shop drawings.

3.02 INSTALLATION:

- A. Install doors in accordance with manufacturer's recommendations and approved shop drawings with skilled craftsmen who have demonstrated a successful history of installing Sliding Glass Doors for more than four years.
- B. Provide required support and security fasteners and set door frames plumb, square, and level without twist or bow.
- C. Apply sealant per specifications and sealant manufacturer's recommendations, wipe off excess and leave exposed sealant clean and smooth.

3.03 FIELD TESTING:

- A. Test installed units in conformance with AAMA 502-90 for air and water infiltration with door manufacturer, contractor and owner to be present.
- B. Select test units as directed by the owner's representative and use an AAMA-accredited laboratory provided by the owner or contractor.

3.04 ADJUSTING AND CLEANING:

- A. Adjust door panels as necessary for smooth and weather-tight operation, and leave doors clean and free of construction debris.