



SPECIFICATIONS

Series 5400 Aluminum Patio Door

Gerkin Windows & Doors Series 5400 is a 4 5/16" Light Commercial Grade sliding patio door with superior performance capabilities. The series has a thermal strut thermal break. This door meets or exceeds all AAMA light commercial design and performance criteria. The series 5400 sliding patio door complements the 58F, and 5800 series windows in horizontal or vertical stacking configurations. A complete line of subframing, panning, mullions, and other accessories is also available.

SECTION 08520 ALUMINUM SLIDING GLASS DOORS

PART 1: GENERAL

1.01 Work Included

- A. Furnish and install commercial aluminum patio doors complete with hardware & related components as shown on drawings and specified in this section.
- B. All patio doors shall be Gerkin Windows & Doors Series 5400. Other manufactures requesting approval to bid their product as an equal must submit the following information fifteen days prior to close of bidding.
 - Custom Configurations are available.
- 1. Sample door * STATE SIZE AND CONFIGURATION *
- 2. Test reports and AAMA Notices of Certification documenting compliance with the requirements of Section 1.04.
- C. Glass and Glazing
 - * Specify glass and glazing in this section. Door assemblies are to be glazed by the manufacturer.

1.02 Related Work

1.03 Items Furnished but not Installed

1.04 Testing and Performance Requirements

- A. Test Unit
 - 1. Air, water and structural test unit sizes and configurations shall conform to the requirements set forth in AAMA/NWWDA/CSA 101/I.S.2/A440-08
- B. Test Procedures and Performance
 - 1. Patio doors shall conform to all AAMA/NWWDA/CSA 101/I.S.2/A440-08 LC-PG40 (96x96) requirements for the door type referenced in 1.01B. In addition, the following specific performance requirements shall be met.
 - 2. Air infiltration Test
 - a. With door operator closed and locked, test the unit in accordance with ASTM E 283 at static air pressure difference of 1.57 psf.
 - b. Air infiltration shall not exceed 0.06 cfm per square foot.
 - 3. Water Resistance Test
 - a. With door operator closed and locked, test unit in accordance with ASTM E 547 at static air pressure difference of 6.06 psf.

- b. There shall be no uncontrolled water leakage.

4. Uniform Load Structural Test

- a. With door operator closed and locked, test unit in accordance with ASTM E 330 at a static air pressure difference of 67.71 psf positive pressure and 67.71 psf negative pressure.
- b. At the conclusion of test there shall be no glass breakage or permanent damage to fasteners.

1.05 Quality Assurance

- A. Provide test reports from AAMA accredited labs certifying the performance as specified in 1.04.

1.06 References

1.07 Submittals

- A. Contractors shall submit shop drawings, finish samples, test reports, and warranties.
 - 1. Samples of materials as may be requested without cost to owner, i.e., Metal, Glass, Fasteners, Anchors, Frame Sections, Mullion Sections, Corner Sections, etc.

1.08 Delivery, Storage, and Handling

1.09 Warranties

- A. Total Window System
 - 1. The responsible contractor shall assume full responsibility and warrant for one year the satisfactory performance of the total door installation which includes that of the doors, glass (including insulated units), glazing, anchorage, and setting system, sealing, flashing, etc. it relates to air, water, and structural adequacy as called for in the specifications and approved shop drawings.
 - 2. Any deficiencies due to such elements not meeting the specifications shall be corrected by the responsible contractor at his expense during the warranty period.

PART 2: PRODUCT

2.01 Materials

- A. Aluminum
 - Extruded aluminum shall be 6063-T5 alloy and temper.
- B. Hardware

- C. Weatherstripping
- D. Glass and Glazing
 - The 5400 Series is available with 1" insulated glazing.
- E. Thermal Barrier
 - 1. Barrier material shall be a thermal strut material. A poured and debridged thermal barrier is unacceptable.

Association designation AA-M12-C22-A44
 Class 1 Dark Bronze Anodized AAMA-608.1. *
 Standard color is Class 1 Dark Bronze
 Anodized or Clear Anodized.

2.02 Fabrication

- A. General
 - 1. All aluminum frame members and sash extrusions shall have a minimum wall thickness of .063".
 - 2. Mechanical fasteners, welded components and hardware items shall not bridge thermal barriers. Thermal barriers shall align at all frame and sash corners.
 - 3. Depth of frame shall not be less than 4 5/16".
- B. Frame
 - 1. Frame components shall be mechanically fastened.
- C. Sash
- D. Screens (Optional)
- E. Glazing
 - 1. Units shall be glazed with a snap-in aluminum extruded glazing bead and a neoprene drive-in gasket on the interior side of glass. The exterior side of glass shall be set against a continuous closed cell foam tape with a continuous cap bead of General Electric SCS 1001 or equal.
- F. Finish
 - 1. Anodic
 - Finish all exposed areas of aluminum windows and components with electrostatically deposited color in accordance with Aluminum

PART 3: EXECUTION

3.01 Job Condition

- A. Verify that openings are dimensionally within allowable tolerances, plumb, level, clean, providing a solid anchoring surface and are in accordance with approved shop drawings.

3.02 Installation

- A. Use only skilled tradesmen with work done in accordance with approved shop drawings and specifications.
- B. Plumb and align window faces in a single plane for each wall plane and erect doors and materials square and true. Doors to be adequately anchored to maintain positions permanently when subjected to normal thermal & building movement and specified wind loads.
- C. Adjust doors for proper operation after installation.
- D. Furnish and apply sealant to provide a weather tight installation at all joints and intersections and at opening perimeters. Wipe off excess material and leave all exposed surfaces and joints clean and smooth.

3.03 Adjusting and Cleaning

- A. After completion of door installation, doors shall be inspected, adjusted, put into working order and left clean, free of labels, shipping pads, dirt, etc. Protection from this point shall be the responsibility of the general contractor.

* Note to spec writers only not to be included in specifications.*