



SERIES 5100 PROJECT-OUT AWNING THERMAL WINDOW SPECIFICATIONS

Gerkin Windows & Doors Series 5100 is a 2 3/8" Commercial / Heavy Commercial Grade Project-Out Awning Window with superior performance capabilities. The series has a poured-in-place thermal break. This window meets or exceeds all AAMA commercial design and performance criteria. The series 5500 fixed window complements the 5100 series windows in horizontal or vertical stacking configurations. A complete line of subframing, panning, mullions, and other accessories is also available.

SECTION 08520 ALUMINUM WINDOWS

PART 1: GENERAL

1.01 Work Included

- A. Furnish and install commercial aluminum windows complete with hardware & related components as shown on drawings and specified in this section.
- B. All windows shall be Gerkin Windows & Doors Series 5100 Project-Out Awning Windows. Other manufacturers requesting approval to bid their product as an equal must submit the following information fifteen days prior to close of bidding.

* Gerkin Model:

- 5110 - 1 Lite Awning
- 5120 - 2 Lite Awning
- 5130 - 3 Equal Lite Awning
- 5150 - 3 Lite Picture
- 5160 - 2 Lite Fixed over Awning
- 5170 - 2 Lite Fixed beside Awning

- Custom Configurations are available.

1. Sample window * 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 if window assemblies are to be glazed by the window manufacturer. If glazing is to be done by a different contractor, glass and glazing should be specified in section 08800. Gerkin Windows & Doors recommends that the window manufacturer perform the glazing.*

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 101/I.S. 2-97

B. Test Procedures and Performance

1. Windows shall conform to all AAMA/NWWDA 101/I.S.2-97 AP-C60 / AP-HC55 requirements for the window type referenced in 1.01B. In addition, the following specific performance requirements shall be met.
2. Air infiltration Test
 - a. With window sash and ventilator closed and locked, test the unit in accordance with ASTM E 283-84 at static air pressure difference of 6.24 psf.

- b. Air infiltration shall not exceed 0.05 cfm per square foot.

3. Water Resistance Test

- a. With window sash and ventilator closed and locked, test unit in accordance with ASTM E 547-86 at static air pressure difference of 9.00 psf.

- b. There shall be no uncontrolled water leakage.

4. Uniform Load Structural Test

- a. With window sash and ventilator closed and locked, test unit in accordance with ASTM E 330-84 at a static air pressure difference of 90 psf positive pressure and 90 psf negative pressure.

- b. At the conclusion of test there shall be no glass breakage, permanent damage to fasteners, hardware parts, support arms or operating mechanism, nor any other damage which would cause the window to be inoperable.

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 window installation which includes that of the windows, 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
 - 1. Locking handles shall be cam type and manufactured from high-pressure die-cast zinc with a phosphate coated, electrostatically painted baked enamel finish. Color or match window.
 - 2. Keeper shall be manufactured from 300 series stainless steel.
 - 3. Hinges shall be a stainless steel 4-bar hinge.
 - 4. Operator shall be Truth Series 22 Pivot Shoe Roto Operator manufactured from high-pressure die-cast zinc with a phosphate coated, electrostatically painted baked enamel finish. Color to match window.
 - C. Weatherstripping
 - 1. All sashes shall consist of a double weatherstripping: One on the exterior face of window and one on interior face of sash. Weatherstripping shall be manufactured from sanoprene.
 - D. Glass and Glazing
 - * Gerkin Windows & Doors recommends that the window manufacturer finish and factory glaze the glass as specified by the architect. For this reason it is desirable that glass and glazing be part of this section. The 5100 Series is available with 1" insulated glazing or 5/8" insulated glazing. Please contact Gerkin Windows & Doors if other than the listed glazing is required. *
 - E. Thermal Barrier
 - 1. Barrier material shall be poured-in-place two part polyurethane. A non-structural thermal barrier is unacceptable.
- ### 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 2 3/8".
 - B. Frame
 - 1. Frame components shall be mechanically fastened.
 - C. Sash
 - 1. All sash extrusions shall be tubular.
 - 2. Each corner shall be mitered, reinforced with a corner key and crimped.
 - 3. Each sash shall have two rows of sanoprene weatherstripping installed in specially designed grooves in the sash extrusion. Weatherstripping must be easily replaced after installation for ease of maintenance.
 - D. Screens (Optional)
 - 1. Screen frame shall be extruded aluminum.

- 2. Screen mounting holes in window frame shall be factory drilled.
 - 3. Screen mesh shall be a 18 x 16 * aluminum or fiberglass mesh.
- 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. Organic
Finish all exposed areas of aluminum windows Components with AAMA 603.8-85 or 605.2-85 pigmented organic coating. Color to be ____* Standard colors are an Earth-tone Bronze and Brilliant White. Other colors are also available on request. Call Gerkin for additional info.
 - 2. Anodic
Finish all exposed areas of aluminum windows and components with electrolytically deposited color in accordance with Aluminum Association designation AA-M12-C22-A44 Class 1 Dark Bronze Anodized AAMA-608.1. * Standard color is Class 1 Dark Bronze Anodized. Other colors are also available on request*.

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 windows and materials square and true. Windows to be adequately anchored to maintain positions permanently when subjected to normal thermal & building movement and specified wind loads.
- C. Adjust windows for proper operation after installation.
- D. Furnish and apply sealant to provide a weathertight 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 window installation, windows 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.*