

SUNCLAD USA DIRECT SET SERIES WINDOWS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Factory-assembled extruded aluminum-clad wood fixed lite windows
- B. Glass and glazing
- C. [muntin bars]
- D. Anchorages, attachments, and shims

1.2 RELATED SECTIONS

- A. Section [072700 – Air Barriers]: Water resistive Barrier
- B. Section [079200 – Joint Sealants]: Sealants and Caulking

1.3 REFERENCES

- A. American Society for Testing and Materials (ASTM)
 - 1. ASTM C 1048 – Specification for Heat Treated Float Glass-Kind HS, Kind FT Coated & Uncoated.
 - 2. ASTM C 1036 - Specification for Flat Glass
 - 3. ASTM E 1300 - Standard Practice for Determining Load Resistance of Glass in Buildings
 - 4. ASTM 2188 – Test Method for Seal Durability of Insulating Glass Units
 - 5. ASTM E 2190 – Standard Specification for Insulating Glass unit Performance & Evaluation
 - 6. ASTM E 283 – Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Difference Across the Specimen
 - 7. ASTM E 330 – Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference
 - 8. ASTM 547 – Water Penetration of Exterior Windows, Curtain Walls and Doors by Cyclic Static Air Pressure Differential
 - 9. ASTM F 588 – Measuring the Forced Entry Resistance of Window Assemblies, Excluding Glazing
- B. Window and Door Manufacturers Association (WDMA)
 - 1. AAMA/WDMA/CSA 101/I.S.2/A440 – North American Fenestration Standard/Specification for windows, doors and skylights.
 - 2. WDMA I.S.-4 – Industry Standard for Water Repellent Preservative Non-Pressure Treatment for Millwork
- C. American Architectural Manufacturers Association (AAMA)
 - 1. AAMA 701 & 702 – Combined Voluntary Specification for Pile Weatherstripping and Voluntary Specification for Replacement fenestration Weatherseals.
 - 2. AAMA 2604 -Voluntary Specification Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels
 - 3. AAMA 2605 - Voluntary Specification Performance Requirements and Test Procedures for Superior Organic Coatings on Aluminum Extrusions and Panels
- D. National Fenestration Rating Council (NFRC):
 - 1. NFRC 100 – Procedure for Determining Fenestration product U-Factors
 - 2. NFRC 200 – Procedure for Determining Fenestration Product Solar Heat Gain Coefficient at Normal Incidence

1.4 PERFORMANCE REQUIREMENTS

- A. Window units shall be Hallmark certified and meet specifications in accordance with AAMA/WDMA/CSA 101/I.S.2/A440-11 to a rating of [LC] – PG[____] (Current performance ratings can be found in the Structural Design section at www.sunwindows.com)

- B. Window unit air leakage, when tested in accordance with ASTM E 283 Shall be 0.01 cfm/ft² of frame or less at 1.57 psf (25 mph).
- C. No water penetration beyond the interior face of the window when tested in accordance with ASTM E 547 under static pressure of 7.5 psf (53.64 mph) after 4 cycles of 5 minutes each separated by 1 minute with pressure released, with water being applied continuously, at a rate of 5 gallons per hour per square foot.
- D. Window shall comply with Forced Entry Resistance requirements for a Level 10, when tested in accordance with ASTM F 588.
- E. Window units shall be rated, certified, and labeled in accordance with NFRC 100.
U-Factors: [___] (Specific glazing options and values can be found in the Energy Performance Section at www.sunwindows.com)
- F. Window units shall be rated, certified and labeled in accordance with NFRC 200.
Solar Heat Gain Coefficient: [___] (Specific glazing options and values can be found in the Energy Performance Section at www.sunwindows.com)

1.5 SUBMITTALS

- A. Submit in accordance with conditions of Division 1 requirements and the contract.
- B. Product Data: Submit Manufacturers product data, including installation instructions.
- C. Shop Drawings: Typical jamb, head and sill details showing layout and installation of typical and composite members, necessary dimensioning, hardware and muller unit details. Submit elevations indicating location and type of glazing material.
- D. Samples: Provide (1) complete window assembly for approval of color, glazing systems and Quality of construction.

1.6 QUALITY ASSURANCE

- A. Provide proof of compliance with AAMA/WDMA/CSA 101/I.S.2/A440-11, ASTM 2190 - rating for Seal Durability of Insulating Glass Units

1.7 PROJECT CONDITIONS

- A. For renovation projects, all actual window openings will be checked by accurate field measurement before fabrication.
- B. Coordinate window fabrication schedule with construction progress to avoid delays.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to job site in manufacturers packaging undamaged, complete with installation instructions.
- B. Store windows and accessories off ground, under cover, protected from weather, construction activities and direct sunlight and in an upright position.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Sun Windows, Inc., 1515 E. 18th St., Owensboro, Kentucky 42303. Toll Free (800)328-1151. Phone (270) 684-0691. Website: www.sunwindows.com

2.2 COMPONENTS

- A. Frame: Select kiln dried Western Pine, water-repellent, preservative –treated in accordance with WDMA I.S. 4. Interior exposed surfaces clear Western Pine, butt jointed; all exterior surfaces clad with 0.050” extruded aluminum at head, jamb, and sill and incorporate an integral aluminum nail fin and water management system as part of the extrusion. Overall frame depth: 6” (152 mm) for a wall depth of 4-9/16” (116 mm).
- B. Glass shall be set to the frame using an AAMA approved silicone glazing material and secured with interior profiled wood stops.

- Optional factory applied jamb extensions available up to 7-9/16" wall depths.
- C. Glazing System: Sealed insulating glass shall be produced using quality float glass complying with ASTM C-1036. [Clear/clear], [clear/argon filled, Low-E II coated]. Various Low-E, tints, obscure, tempered, laminated and triple glazing options are also available. Dual sealed insulating glass will have a 1/2" air space with the revolutionary Duralite™ Warm Edge I.G. Spacer. Insulated glass meets or exceeds standards required by ASTM E 2190

The following two paragraphs specify optional products sold separately. Consult manufacturer and edit accordingly.

- D. Grilles- Between- Glass (GBG): [3/4" contour profile], [1/4" profile] Roll form aluminum bars fitted between the panes of glass in the specified insulated glass unit. 3/4" internal contour grille (GBG) finish shall be baked enamel, 1-color options [see grille types options at www.sunwindows.com]. 2 color options [see grille type options at www.sunwindows.com].
- E. Simulated Divided Lite Grilles (SDL): Exterior muntin bars shall be [1"] [1 1/4"] [5/8"] [2 1/4"] profile hollow (.280" thick) or solid (.125" thick) extruded aluminum bars. Bars shall be adhered to exterior glass surface with black VHB acrylic adhesive tape and will align with interior aluminum muntin of same size. Interior grilles applied with acrylic adhesive tape. Exterior bars finished to match window cladding. Interior bars finished to match interior wood. (Color options may be found by going to Interior Finish Options at www.sunwindows.com).

2.3 CERTIFICATIONS

Sun Windows are certified to the following programs, using Independent Testing Laboratories.

- A. WDMA Hallmark Certification Program
B. NFRC (National Fenestration Rating Council)

2.4 FINISH

- A. Exterior Finish: Finish shall meet specifications in accordance with AAMA 2604. As selected by customer from manufacturer's full range of standard and custom colors. [optional: 2605]
B. Interior Finish: Unfinished and ready for site finishing. [optional: white, black, primed]

PART 3 EXECUTION

3.1 INSTALLATION

- A. Inspect window openings prior to beginning installation. Verify that the openings are level and plumb and that the minimum opening dimension (width or height) is 1/2" larger than the window unit. Proceed with installation only after unsatisfactory conditions have been corrected.
- B. Install window units in accordance with manufacturer's recommendations, installation & Finishing Instructions and approved shop drawings.
- C. Secure assembly to framed openings, plumb, level and square, without distortion. Provide proper support and anchor securely in place.
- D. Place batt insulation in shim spaces around window perimeter to maintain continuity of building insulation. Do not use expanding foam insulation.
- E. Apply sealant and related backing materials at the exterior perimeter of the window units.
- F. Leave window units closed and locked.

3.2 PROTECTION AND CLEANING

- A. Clean window frames, sash and glass promptly following installation. Avoid damaging protective coatings and finishes. Remove excess sealants, dirt and other substances.
- B. Protect window surfaces and hardware from contact with contaminating substances, such as masonry cleaning solutions. Contact with certain substances can cause damage to the glass surface and/or could cause seal failure of the insulating glass unit. These substances could

also cause discoloration or damage to painted surfaces. Clean contaminated surfaces immediately after contact.

- C. Remove nonpermanent labels from glass surfaces per manufacturer's installation finishing instructions.
- D. Remove and replace glass that has been broken, chipped, cracked, abraded or damaged during the construction period.

END OF SECTION

Specifications subject to change without notice