

Product Guide Specification

SECTION 08572 (08 54 13)

FIBERGLASS CASEMENT WINDOWS

Specifier Notes: This section covers Accurate Dorwin 325 Series Casement windows. Frame and sash are manufactured from pultruded-fiberglass material made exclusively for Accurate Dorwin Inc. Consult your local Accurate Dorwin representative for assistance in editing this section for the specific application.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Fiberglass casement windows.

1.2 RELATED SECTIONS

- A. Section 07270 (07 27 00) - Air Barriers: Water-resistant barrier.
- B. Section 07920 (07 92 00) - Joint Sealants: Sealants and caulking.

1.3 REFERENCES

- A. American Architectural Manufacturers Association (AAMA):
 - 1. AAMA 502 - Voluntary Specification for Field Testing of Windows and Sliding Doors.
 - 2. AAMA 623 - Voluntary Performance Requirements and Test Procedures for Organic Coatings on Fiber Reinforced Thermoset Profiles
- B. American Society for Testing and Materials (ASTM):
 - 1. ASTM C 1036 - Flat Glass.
 - 2. ASTM C 1048 - Heat-Treated Flat Glass--Kind HS, Kind FT Coated and Uncoated Glass.
 - 3. ASTM D 3656 - Insect Screening and Louver Cloth Woven from Vinyl-Coated Glass Yarns.
 - 4. ASTM E 283 - Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Difference Across the Specimen.
 - 5. ASTM E 547 - Water Penetration of Exterior Windows, Curtain Walls and Doors by Cyclic Static Air Pressure Differential.
 - 6. ASTM E 330 - Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.
- C. CSA Group

1. AAMA/WDMA/CSA 101/I.S.2/A440-09, NAFS - North American Fenestration Standard for Windows, Doors, and Skylights.
 2. CSA A440S1-09, Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440, NAFS - North American Fenestration Standard for Windows, Doors, and Skylights.
- C. Screen Manufacturers Association (SMA):
1. SMA 1201 - Specifications for Insect Screens for Windows, Sliding Doors and Swinging Doors.
- D. Window and Door Manufacturers Association (WDMA):
1. ANSI/AAMA/NWDA 101/I.S.2 - Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors.
- E. 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 and Visible Transmittance at Nominal Incidence.

1.4 PERFORMANCE REQUIREMENTS

Specifier Notes: Performance ratings for Accurate Dorwin windows vary by product and size. Current performance information is found in the Accurate Dorwin Architectural Catalogue. Consult your local Accurate Dorwin representative for more information.

- A. Windows shall meet Rating PG 55 specifications in accordance with ANSI/AAMA/NWDA 101/I.S.2/A440-08.
- B. Classification rating: AAMA/WDMA/CSA 101/I.S.2/A440
1. Primary Designation:
 - .1 Performance Class – CW
 - .2 Performance Category – 55
 2. Secondary Designation:
 - .1 Positive Design Pressure + 2880 Pa
 - .2 Negative Design Pressure – 2880 Pa
 - .3 Water Penetration Resistance: 730 Pa
- B. Window Air Leakage, ASTM E 283: Window air leakage when tested at 1.57 psf (25 mph) shall be 0.01 cfm/ft² of frame or less.
- C. Window Water Penetration, ASTM E 547: No water penetration through window when tested under static pressure of 15 psf (75 mph) after 4 cycles of 5 minutes each, with water being applied at a rate of 5 gallons per hour per square foot.
- D. Thermal Performance, NFRC 100, NFRC 200, and ASTM 1363:
- a. 1" Insulated SB60 Low-E/Argon units – U Value .26, SHGC .24
 - b. 1" Insulated Sungate 400 Low-E/Argon units – U Value .28, SHGC .45
 - c. 1.25" Triple Insulated SB60 Low-E/Argon units – U Value .17, SHGC .23
 - d. 1.25" Triple Insulated Sungate 400 Low-E/Argon units – U Value .18, SHGC .39
- .2 Classification rating: to AAMA/WDMA/CSA 101/I.S.2/A440.

1.5 SUBMITTALS

- A. Submit in accordance with Division 1 requirements.

- B. Product Data: Submit manufacturer's product data, including installation instructions.

Specifier Notes: Delete the following sentence if shop drawings are not required.

- C. Shop Drawings: Submit manufacturer's shop drawings, indicating dimensions, construction, component connections and locations, anchorage methods and locations, hardware locations, and installation details

Specifier Notes: In accordance with the manufacturer's limited warranty, stainable interior wood laminate windows must be finished upon receipt and before installation. Variations in wood grain, color, texture, and natural characteristics are not covered under the limited warranty..

- D. Samples: Submit full-size or partial full-size sample of window illustrating glazing system, quality of construction, and color of finish.
- E. Warranty: Submit manufacturer's standard warranty.

1.6 QUALITY ASSURANCE

Specifier Notes: Edit the following paragraph as required for inclusion of field testing.

- A. Mockup:
 1. Provide sample installation for field testing window performance requirements and to determine acceptability of window installation methods.
 2. Approved mockup shall represent minimum quality required for the Work.

Specifier Notes: Edit the following sentence as required for inclusion of the mockup.

3. Approved mockup shall remain in place within the Work.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site undamaged in manufacturer's or sales branch's original, unopened containers and packaging, with labels clearly identifying manufacturer and product name. Include installation instructions.
- B. Storage:
 1. Store materials in accordance with manufacturer's instructions.
 2. Store materials off ground and under cover.
 3. Protect materials from weather, direct sunlight, and construction activities.
- C. Handling: Protect materials and finish during handling and installation to prevent damage.

1.8 WARRANTY PERIOD

- A. Window: 10 years from date of Substantial Completion
- B. Glazing Units: 20 years from date of Substantial Completion against insulated glass units from

seal failure, interpane dusting or misting

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Accurate Dorwin 1535 Seel Ave, Winnipeg, Manitoba R3T 1C6. Toll Free (800) 982-4640. Website www.accuratedorwin.com

2.2 FIBERGLASS CASEMENT WINDOWS

- A. Fiberglass Casement Windows: Series 325 factory-assembled fiberglass windows with outward-opening sash installed in frame.
- B. Frame:
 - 1. Pultruded Fiberglass
 - 2. Exterior Finish: Painted
 - 3. Interior Finish: Painted or wood laminate.
 - 4. Overall Frame Depth: 3-1/4 inches (83mm)
 - 5. Frame Corners:
 - a. Mitered.
 - b. Joined and sealed with nylon corner key, mechanically fastened and silicone
- C. Sash:
 - 1. Pultruded Fiberglass
 - 2. Exterior Finish: Painted
 - 3. Interior Finish: Painted
 - 4. Sash Corners:
 - a. Mitered.
 - b. Joined and sealed with nylon corner key, mechanically fastened and silicone
- D. Glazing:
 - 1. Float Glass: ASTM C 1036, Quality 1.
 - 2. Type: Silicone-glazed 1-inch dual-seal glass insulated / 1.25 inch triple-seal glass insulated Low-E coated with Argon
- E. Weather Stripping:
 - 1. Single foam filled weather stripping on sash.
 - 2. Dual foam filled weather stripping on frame.

2.3 OPTIONS

- A. Grilles:
 - 1. Insulating Glass: Contain 3/4-inch, contoured, aluminum grilles between the glass.
 - 2. Finish: Factory-finished. Match window frame.
- B. Insect Screens:
 - 1. Compliance: ASTM D 3656 and SMA 1201.
 - 2. Screen Cloth: black, vinyl-coated, 18/16 mesh, fiberglass screen cloth set in aluminum frame fitted to inside of window.
 - 3. Complete with necessary hardware.
 - 4. Screen Frame Finish: Baked enamel.

- a. Color: Match window interior.

2.4 HARDWARE

- A. Operator:
 - 1. Steel single / dual arm operator with hardened gears.
 - 2. Operator Base: Zinc die cast with painted E-Gard finish.
 - 3. Operator Linkage, Hinge Slide, and Hinge Arms: Zinc die cast with E-Gard finish.
 - 4. Exposed Fasteners: Stainless steel.
 - 5. Hardware Salt Spray Exposure, ASTM B 117: Exceed 1,000 hours.
- B. Crank Handle Finish
 - 1. Integrated Folding Crank: Baked enamel
- C. Locking System: Multi-Point Locking System
 - 1. Single-handle locking system
 - 2. Operate positive acting arms that pull sash into locked position starting at bottom
 - 3. Three locking points
 - 4. Lock Handle Finish: Baked enamel

2.5 TOLERANCES

- A. Windows shall accommodate the following opening tolerances:
 - 1. Horizontal Dimensions Between High and Low Points: Plus 1/4-inch, minus 0 inch.
 - 2. Width Dimensions: Plus 1/4-inch, minus 0 inch.
 - 3. Building Columns or Masonry Openings: Plus or minus 1/4-inch from plumb.

2.6 FINISH

- A. Exterior and Interior: Factory-applied two part urethane paint, complies with AAMA 623.

2.7 INSTALLATION ACCESSORIES

- A. Flashing/Sealant Tape:
 - 1. Aluminum-foil-backed butyl window and door flashing tape.
 - 2. Maximum Total Thickness: 0.013 inch.
 - 3. UV resistant.
 - 4. Verify sealant compatibility with sealant manufacturer.
- B. Insulating-Foam Sealant: Dow Window and Door
 - 1. Low-expansion, low-pressure polyurethane insulating foam sealant.

2.8 SOURCE QUALITY CONTROL

- A. Factory Testing: Factory test individual standard operable windows for air infiltration in accordance with ASTM E 283, to ensure compliance with this specification.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive windows. Notify Architect of conditions that would adversely affect installation or subsequent use. Do not proceed with installation until unsatisfactory conditions are corrected.

3.2 INSTALLATION

- A. Install windows in accordance with manufacturer's instructions and approved shop drawings.
- B. Install windows to be weather-tight and freely operating.
- C. Maintain alignment with adjacent work.
- D. Secure assembly to framed openings, plumb and square, without distortion.
- E. Integrate window system installation with exterior water-resistant barrier using flashing/sealant tape. Apply and integrate flashing/sealant tape with water-resistant barrier using watershed principles in accordance with window manufacturer's instructions.
- F. Place interior seal around window perimeter to maintain continuity of building thermal and air barrier using insulating foam sealant.
- G. Seal window to exterior wall cladding with sealant and related backing materials at perimeter of assembly.
- H. Leave windows closed and locked.

3.3 FIELD QUALITY CONTROL

- A. Field Testing: Field-test windows in accordance with AAMA 502, Test Method A. Manufacturer's representative shall be present

3.4 CLEANING

- A. Clean window frames and glass in accordance with Division 1 requirements.
- B. Do not use harsh cleaning materials or methods that would damage finish or glass.
- C. Remove labels and visible markings.

3.5 PROTECTION

- A. Protect installed windows to ensure that, except for normal weathering, windows will be without damage or deterioration at time of substantial completion.

END OF SECTION