

# Windsor Bi-fold

## OUTSWING BI-FOLD DOORS

## SPECIFICATIONS

### PART 1 - GENERAL

#### 1.01 SECTION INCLUDES

- A. Factory assembled outswing bi-fold patio doors glass and glazing, operable hardware, weatherstripping, and [grilles].
- B. Anchorages, attachments, and accessories.

#### 1.02 RELATED SECTIONS

- A. Section 01340 - Shop Drawings, Product Data, and Samples.
- B. Section 01610 - Delivery, Storage, and Handling.
- C. Section 01710 - Final Cleaning.
- D. Section 07200 - Batt and Blanket Insulation.
- E. Section 07920 - Sealants and Caulking.
- F. Section 08800 - Glass and Glazing.

#### 1.03 REFERENCES

- A. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM):
  - 1. ASTM E-283 - Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors.
  - 2. ASTM E-547 - Water Penetration of Exterior Windows, Curtain Walls, and Doors by Cyclic Static Air Pressure Difference.
  - 3. ASTM E-330 - Structural Performance of Exterior Windows, Curtain Walls, and Doors under Uniform Static Air Pressure Difference.
- B. AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION (AAMA):
  - 1. AAMA/WDMA/CSA 101/I.S.2/A440-11 North American Fenestration Standard/Specification for Windows, Doors and Skylights.
- C. WINDOW & DOOR MANUFACTURERS ASSOCIATION (WDMA):
  - 1. WDMA I.S-4 – 07 Industry Standard for Water-Repellent Preservative Treatment for Millwork
- D. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
- E. NATIONAL FENESTRATION RATING COUNCIL (NFRC)

#### 1.04 PERFORMANCE CRITERIA

- A. Patio Door units shall meet requirements in accordance with AAMA/WDMA/CSA 101/I.S.2/A440-11.
- B. Air leakage shall not exceed 0.30 cfm per sq.ft. of sash when tested in accordance with ASTM E-283 at 1.57 psf.
- C. No water penetration shall be allowed when tested in accordance with ASTM E-547.
- D. Door units shall withstand positive and negative wind loads without damage. The units shall be tested in accordance with ASTM E-330.

#### 1.05 SUBMITTALS

- A. Shop drawings shall be submitted in accordance with Section 01340.
- B. Product data in the form of general catalogs, test lab reports, product performance, and warranty information shall be submitted in accordance with Section 01340.
- C. Samples showing glazing, quality of construction, and finish shall be submitted in accordance with Section 01340.

#### 1.06 DELIVERY, STORAGE, AND HANDLING

- A. In compliance with Section 01610, window units shall be delivered undamaged and with protective packaging. Complete installation and finishing instructions shall be included.
- B. Store units in a clean, dry place off the ground in an upright position.

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### PART 2 - PRODUCTS

#### 2.01 MANUFACTURER

- A. Windsor Outswing Bi-Fold units as manufactured by Windsor Windows & Doors.

#### 2.02 MATERIALS

- A. Frame: Select softwoods treated with water repellent preservative in accordance with NWWDA I.S.-4. Exposed exterior portion of head and jambs shall be extruded aluminum sealed at corners with closed cell foam gaskets and fastened with screws. Interior face of jambs shall be clear stain grade. Sill shall be aluminum with solid oak threshold with protective covering. Bronze anodized sill with Fir threshold, track for roller system incorporates drainage system. Doors up to eight panels wide will have a single frame with a continuous head and sill. Frame width is adjustable from 4 9/16" to 7 1/4" with available interior jamb extenders. Frame is supported with extruded aluminum nailing fin. Natural Alder and Fir interior option is available.
- B. Door Panels: Shall be softwoods with Ponderosa pine veneers treated with water repellent preservative. Stiles and rails shall be fastened with ribbed hardwood dowels. Exterior surfaces shall be clad with aluminum extrusion with lapped and sealed corners. Foam tape is applied to the backside of glass stops. Stiles are 4 7/8" wide, top rail is 5 3/16" wide, and bottom rail is 8 9/16" wide. Natural Alder interior option is available.
- C. Finish: A clear pine veneer interior provides a smooth surface ready for finishing. All exterior head, side jamb, and panel extrusions shall be covered with a factory applied, polyester powder-coat paint in 22 standard and 20 feature colors. Anodized colors are also available.
- D. Glazing: Shall be 3/4" tempered double pane LoE 366 insulating glass as standard, glazed with double-faced tape, a full perimeter bead of silicone, and interior wood stops. A wide array of other glass options is offered including clear, tinted, and obscure. Cardinal's Preserve™ option is available on most glass options. It is a removable, factory-applied protective film adhered to both interior and exterior surfaces of the glass.
- E. Weather stripping: Shall include flexible weatherable PVC and foam seal between jambs and panel. Pile weather stripping also used between head and side jambs and panel.
- F. Hardware: Finish matched strike plates and adjustable hinges shall be installed with each operating panel for smooth operation. Installed single point or multi-point "euro" hardware is available on all swinging doors. The multi-point hardware has a three-point, side engage, tongue-locking system. A variety of hardware finishes are available. Handle sets are ordered and shipped separately.
- G. Screens: Screens are not available on outswing bi-fold doors.
- H. Grilles: (Extra when specified) Colonial grilles shall be select pine with moulded edges. Stick grilles are fastened to sash with press pins, while perimeter grilles use a hidden clip system. Stick grilles and perimeter grilles are available in 7/8" or 1-1/4" widths. White, cinnamon, bronze, tan, ivory, hunter green, or black; aluminum inner grilles (in air space) are also available in 13/16" flat, 3/4" profiled, or 1" profiled. Two-toned inner grilles (3/4" profiled only) are available with a white interior, and a bronze, green, tan, ivory, or black exterior. Windsorlite (WDL) simulates true divided lite, but is created by adhesively fixing the wood interior and aluminum exterior to the surfaces of the insulated glass; when ordered interior primed, the interior WDL bars will be cellular PVC. WDL is available in 7/8" and 1-1/4" standard, 5/8" putty, and 7/8" putty with standard interior. All are available with or without inner bar between the glass. Exterior bars are available in 22 standard and 20 feature colors.

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### **PART 3 – EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify that there is no visible damage to the unit before installation.

#### **3.02 INSTALLATION**

- A. Verify the rough opening is of the recommended size and that it is plumb, level, and square.
- B. Install the window unit in accordance with the manufacturer's recommendations.
- C. Install sealant, backing material, and insulation around opening perimeter in accordance with Section 07900 and Section 07920.

#### **3.03 ADJUSTMENT AND CLEANING**

- A. Operate unit and verify that all hardware operates freely. Make any adjustments necessary.
- B. Cover the window unit to avoid damage due to spray paint, plaster, and other construction operations.
- C. Remove all visible labels and instructions.
- D. Final cleaning of glass in accordance of Section 01