

SECTION 08 54 13

ALL ULTREX® DOUBLE HUNG WINDOW

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. All Ultrex® double hung window complete with hardware, glazing, weather strip, insect screen and half screen, grilles-between-the glass, jamb extension, sheet rock return, j-channel, and standard or specified anchors, trim and attachments.

1.2 RELATED SECTIONS

- A. Section 01 33 23—Submittal Procedures: Shop Drawings, Product Data, and Samples.
- B. Section 01 62 00—Product Options
- C. Section 01 65 00—Product Delivery
- D. Section 01 66 00—Storage and Handling requirements
- E. Section 01 71 00—Examination and Preparation
- F. Section 01 73 00—Execution
- G. Section 01 74 00—Cleaning and Waste Management
- H. Section 01 76 00—Protecting Installed Construction
- I. Section 06 22 00—Millwork: Wood trim other than furnished by window manufacturer
- J. Section 07 92 00—Joint Sealants: Sill sealant and perimeter caulking
- K. Section 09 90 00—Paints and Coatings: Paint or stain other than factory applied finish

1.3 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. E 283: Standard Test Method for Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors.
 - 2. E 330: Standard Test Method for Structural Performance of Exterior Windows, Curtains Walls, and Doors by Uniform Static Air Pressure Difference.
 - 3. E 547: Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Cyclic Static Air Pressure Differential.
 - 4. E 774: Specification for Sealed Insulated Glass Units.
 - 5. C 1036: Standard Specification for Flat Glass.
- B. Sealed Insulating Glass Manufacturers Association / Insulating Glass Certification Council (SIGMA / IGCC).
- C. American Architectural Manufacturers Association / Window and Door Manufacturers Association (AAMA / WDMA):
 - 1. ANSI/AAMA/NWDA 101 / I.S.2-97: Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors.
 - 2. 101/I.S. 2/NAFS-02: Voluntary Performance Specification for Windows, Skylights and Glass Doors/
- D. Window and Door Manufacturers Association (WDMA): Hallmark Certification Program.
- E. American Architectural Manufacturers Association (AAMA): 613: Voluntary Performance Requirements and Test Procedures for Organic Coatings on Plastic Profiles.
- F. National Fenestration Rating Council (NFRC): 101: Procedure for Determining Fenestration Product Thermal Properties.

1.4 SYSTEM DESCRIPTION

A. Design and Performance Requirements:

1. Window units shall be designed to comply with ANSI / AAMA / NWWDA 101 / I.S.2-97 and 101 / I.S. 2/ NAFS-02
 - a. Double Hung: (H-LC50), (H-LC40), (H-LC30)
 - b. Transom: (TR-C50)
 - c. Picture: (F-C50)
2. Air leakage shall not exceed the following when tested at 1.57 according to ASTM E 283: .0.3 cfm per square foot of frame.
3. No water penetration shall occur when units are tested at the following pressure according to ASTM E 547:
 - a. Double Hung: (H-LC50 – 7.5 psf),(H-LC-40-6 psf), (H-LC30 – 4.5 psf)
 - b. Transom: (TR-C50-7.5 psf)
 - c. Picture: (F-C50-7.5 psf)
4. Units shall be designed to comply with ASTM E330 for structural performance when tested at the following pressures:
 - a. Double Hung: (H-LC-50 - 75 psf), (H-LC-40-60 psf), (H-LC-30 - 45 psf)
 - b. Transom: (TR-C50-75 psf)
 - c. Picture: (F-C50-75 psf)

1.5 SUBMITTALS

- A. Shop Drawings: Submit shop drawings under provisions of Section 01 33 23.
- B. Product Data: Submit catalog data under provisions of Section 01 33 23.
- C. Samples:
 1. Submit corner section under provisions of Section 01 33 23.
 2. Include glazing system, quality of construction, and specified finish.
- D. Quality Control Submittals: Submit manufacturer's certifications indicating compliance with specified performance and design requirements under provisions of Section 01 33 23.

1.6 QUALITY ASSURANCE

- A. Regulatory Requirements: Emergency Egress or Rescue: Comply with requirements for sleeping units of [IBC International Building Code] [BOCA Basic Building Code] [Southern Building Code] [Uniform Building Code] [_____].

1.7 DELIVERY

- A. Comply with provisions of Section 01 65 00.
- B. Deliver in original packaging and protect from weather.

1.8 STORAGE AND HANDLING

- A. Prime or seal wood surfaces, including surface to be concealed by wall construction, if more than thirty (30) days will expire between delivery and installation.
- B. Store window units in an upright position in a clean and dry storage area above ground and protect from weather under provisions of Section 01 66 00.

1.9 WARRANTY

- A. Windows shall be warranted to be free from defects in manufacturing, materials, and workmanship for a period of ten (10) years from purchase date.
- B. Window glass shall be warranted to be free from defects in manufacturing, materials and workmanship for period of twenty (20) years from the purchase date.

PART 2 PRODUCTS

2.1 MANUFACTURED UNITS

- A. Description: All Ultrex® Double Hung (and related stationary or picture units) as manufactured by Integrity Windows and Doors, Fargo, North Dakota. Operating sash tilt to interior for cleaning or removal.

2.2 FRAME DESCRIPTION

- A. Interior: Pultruded reinforced fiberglass (Ultrex®), 0.070 – 0.077 inch (2 mm) thick.
- B. Frame width: 3 3/32 inches (79 mm).
- C. Jamb depth: 2 inches (51 mm).

2.3 SASH DESCRIPTION

- A. Pultruded reinforced fiberglass (Ultrex®), 0.075 – 0.077 inch (2 mm) thick.
- B. Composite sash thickness: 15/16" inches (24 mm).

2.4 GLAZING

- A. Select quality complying with ASTM C 1036. Insulating glass SIGMA/IGCC certified to performance level CBA when tested in accordance with ASTM E 774.
- B. Glazing method: 11/16 inch (19 mm) Insulated glass.
- C. Glass type: [LoE² - 272[®] Argon gas] [LoE³ - 366[®] with Argon gas]
- D. Glazing seal: Silicone bedding at exterior and a glazing boot to interior.

2.5 FINISH

- A. Factory baked on acrylic urethane.
- B. Color: Stone White exterior with Stone White interior; Pebble Gray exterior with Stone White interior; Bronze exterior with Stone White interior; Evergreen exterior with Stone White interior; Cashmere exterior with Stone White interior; Ebony exterior with Stone White interior.

2.6 HARDWARE

- A. Balance System: Coil spring block and tackle with nylon cord and glass filled nylon shoe and steel locking shoe.
- B. Jamb Track: Pultrusion.
- C. Sash Lock: High pressure zinc die-cast cam lock and keeper.
 - 1. Finish: Phosphate coated and electrostatically painted. Color: White.
 - 2. Two locks on units that are over 3-0 in width.
- D. Sash Lift: Zinc die cast contoured sash lift. Color: White.

2.7 WEATHER STRIP

- A. Frame Weather strip
 - 1. At Bottom Sash: Color: Beige – Combination foam filled bulb.
 - 2. At Top Sash: Color: White – Combination hollow vinyl bulb.
 - 3. At Interlock: Beige: Rigid ABS with flexible hollow bulb.

2.8 JAMB EXTENSION

- A. Standard: Jamb is 2"; optional factory installed 4-9/16" (116 mm) or 6-9/16 (167 mm)

2.9 INSECT SCREEN

- A. Factory installed full screen. Screen mesh, 18 by 16: Charcoal fiberglass.
- B. Aluminum frame finish: Stone White

2.10 GRILLES-BETWEEN-THE-GLASS (GBG)

- A. Manufactured from aluminum in an 11/16" (17mm) wide contoured profile placed between the two panes of glass. Available in rectangular and prairie lite cut patterns. Prairie lite pattern – six lite for single hung and nine lite for picture. Size limitations may apply to prairie lite cut availability.
- B. Colors: Stone White exterior with Stone White interior

2.11 ACCESSORIES AND TRIM

- A. Installation Accessories:
 - 1. Factory installed vinyl folding nailing fin at head, sill and side jambs.
 - 2. Installation brackets: Brackets for 4-9/16 inch (116 mm); 6-9/16 inch (167 mm) jambs.
 - 3. Sheet rock return.
 - 4. J-channel.
 - 5. Mullion kit: Standard mullion kit for field assembly of related units available in horizontal, vertical and 2-wide and/or 2-high configurations. Kit includes: Instructions, interior and exterior mull covers, mull plugs and brackets.
 - 6. 3" Frame Expander
 - 7. 3/4" Receiver

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verification of Conditions: Before Installation, verify openings are plumb, square, and of proper dimension as required in Section 01 71 00. Report frame defects or unsuitable conditions to the General Contractor before proceeding.
- B. Acceptance of Conditions: Beginning of installation confirms acceptance of existing conditions.

3.2 INSTALLATION

- A. Comply with Section 01 73 00.
- B. Assemble and install window unit according to manufacturer's instructions and reviewed shop drawings.
- C. Install sealant and related backing materials at perimeter of unit or assembly in accordance with Section 07 92 00 Joint Sealants. Do not use expansive foam sealant.
- D. Install accessory items as required.

E. Use finish nails to apply wood trim and mouldings.

3.3 CLEANING

A. Remove visible labels and adhesive residue according to manufacturer's instructions.

B. Leave windows and glass in a clean condition. Final cleaning as required in Section 01 74 00.

3.4 PROTECTING INSTALLED CONSTRUCTION

A. Comply with Section 01 76 00.

B. Protect windows from damage by chemicals, solvents, paint, or other construction operations that may cause damage.

END OF SECTION