

SECTION 08631

TUBULAR PLASTIC WINDOWS

1 PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Factory fabricated tubular extruded plastic windows with operating sashes.
- B. Glass factory glazed, and framed insect screens.

1.2 SYSTEM DESCRIPTION

- A. Windows: Extruded tubular plastic sections, factory fabricated, vision glass, related flashings, anchorage and attachment devices.
- B. Performance Requirements For Windows: Conform to ANSI/AAMA 101V Grade 40.
- C. System Design: Performance to provide for expansion and contraction within system components caused by temperature cycling. Design and size members to withstand dead loads caused by pressure and suction of wind.
- D. Air Infiltration: Limit air leakage through assembly to 0.03 cfm/min/sq ft of wall area, measured at a reference differential pressure across assembly of 1.57 psf as measured in accordance with AAMA 501.
- E. Water Leakage: None, when measured in accordance with ASTM E331.
- F. Uniform Structural Load: No damage at 82.5 psf.
- G. Condensation Resistance Factor: 58 when tested in accordance with AAMA 1504.
- H. System Internal Drainage: Drain water entering the framing system, to exterior.
- I. Thermal Movement: Design sections to permit thermal expansion and contraction of plastic as compared to glass, infill, or perimeter opening construction.

1.3 SUBMITTALS

- A. Product Data: Provide component dimensions, anchorage and fasteners, glass, internal drainage details and screens.
- B. Shop Drawings: Indicate opening dimensions, framed opening tolerances, affected related work and installation requirements.

1.4 WARRANTY

- A. Section 01001 - Basic Requirements: Provide a ten year warranty to include coverage for insulated glass units.

2 PART 2 PRODUCTS

2.1 WINDOW UNITS

- A. Window Unit Manufacturers:
 - 1. Paradigm Windows, Portland, Maine.
- B. Frames: 3-1/4" deep profile.
- C. Configuration: single hung, awning and casement units in New Construction and Replacement types.
- D. Model:

New Construction Single Hung:	Unitec
New Construction Awning:	Awning
Replacement Single Hung:	Traditions
Replacement Casement:	Casement

2.2 FRAME MATERIALS AND ACCESSORIES

- A. Plastic: hollow tubular sections of extruded 100% virgin polyvinyl chloride (PVC) with nominal wall thickness of 0.065", integral to unit at new construction locations.
- B. Fasteners: Stainless steel.
- C. Sills: Extruded tubular plastic; sloped for positive wash; extend 1 inch beyond wall face; one piece full width of opening.
- D. Insect Screen Frames: Extruded aluminum , of rectangular sections with aluminum 18 x 16 mesh set into frame and secured. Fit frames with adjustable roller hardware.
- E. Weather Stripping: Minimum of two courses of solid barrier fin-type at crack perimeter with flexible bulb type at bottom sash, configured for flexible fit.
- F. Sealant and Backing Materials: As specified in Section 07900 .
- G. Anchor Devices: Stainless steel.
- H. Casing: 3 1/2" vinyl receiver casing.
- I. Grills: Integral between glass as indicated. Provide False Meeting Rail at Casement Window Units.

2.3 GLASS AND GLAZING MATERIALS

- A. Glass and Glazing Materials in Window Lights: 7/8" Low-E insulating glass.

2.4 HARDWARE

- A. Single Sash: Block and tackle balance, each sash, each jamb.
- B. Sash lock: Lever handle with cam lock

2.5 FABRICATION

- A. Fabricate framing, mullions and sash members with fusion welded corners and joints, in a rigid jig. Supplement frame sections with internal reinforcement where required for structural rigidity.
- B. Form snap in glass stops, closure molds, weather stops, and flashings of extruded PVC for tight fit into window frame section. Form weather stop flange to perimeter of unit.
- C. Assemble insect screens of formed aluminum rectangular sections with mesh set into frame and secured.
- D. Double weatherstrip operable units.

2.6 FINISHES

- A. Exterior Surfaces: White color.
- B. Interior Surfaces: White color .
- C. Screens: Black color .

3 PART 3 EXECUTION

3.1 EXAMINATION AND PREPARATION

- A. Verify that rough openings are correctly sized and located.
- B. Prepare opening to permit correct installation of frame and achieve continuity of air and vapor barrier seal.

3.2 INSTALLATION

- A. Install window units, in accordance with manufacturers instructions. Provide WR Grace Vycor flashing at new construction locations as per Window Flashing Detail (see drawings).
- B. Use anchorage devices to securely attach frames to structure.
- C. Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances, aligning with adjacent work.
- D. Coordinate attachment and seal of air and vapor barrier materials. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.

- E. Install perimeter sealant, backing materials, and installation requirements in accordance with Section 07900

...END OF SECTION