

## SECTION 08630

### FIBERGLASS REINFORCED PLASTIC WINDOWS

#### PART 1 - GENERAL

##### 1.1 DESCRIPTION

- A. Scope: Furnish and install fixed, fiberglass reinforced plastic (FRP) windows as indicated on the Drawings or specified herein
- B. Additional Requirements Specified Elsewhere
  - 1. Section 01340: Shop Drawings and Product Data
  - 2. Section 01400: Quality Control
  - 3. Section 01600: Materials and Equipment
- C. Related Requirements Specified Elsewhere
  - 1. Section 04200: Unit Masonry
  - 2. Section 05501: Anchor Bolts and Drilled-In Anchors
  - 3. Section 07900: Joint Sealants
  - 4. Section 08800: Glazing
  - 5. Section 09900: Painting

##### 1.2 SUBMITTALS

- A. In accordance with Section 01340
- B. Shop Drawings: Provide shop drawings for all windows
- C. Product Data: Provide product data for hardware, fasteners and appurtenances

##### 1.3 DELIVERY, STORAGE, AND HANDLING

- A. Delivery
  - 1. Schedule deliver to coincide with glazing schedules so that minimum handling of crates is required
  - 2. Do not open crates except as required to inspect for shipping damage
- B. Storage
  - 1. Store cases according to printed instructions on case, in areas least subject to traffic or falling objects
  - 2. Keep storage area clean and dry and free from weather and temperature extremes
  - 3. Store frames in such a position to prevent twisting
- C. Handling

1. Unpack cases following printed instructions on case
2. Stack individual windows on edge leaned slightly against upright supports with separators between each

#### 1.4 WARRANTY

- A. Provide warranty against malfunction due to defects in material or workmanship for a period of two years following acceptance of the building by the Owner

### PART 2 - PRODUCTS

#### 2.1 WINDOW MANUFACTURERS

##### A. Design Basis

1. FIB-R-DOR, Division of Chase Doors
2. CORRIM Company
3. Chem-Pruf Door Company, Ltd.
4. Or equivalent
5. Equivalent products of other manufacturers may be accepted subject to compliance with design, function, materials, and performance of the specified items

#### 2.2 MATERIALS

- A. Fiberglass mat: Glass fiber strand, minimum 1.5 ounces per square foot
- B. Resins: Manufacturer's formulation for fabricating units to meet specified requirements
- C. Anchors: Manufacturer's standard stainless steel drilled-in or masonry "T" anchors
- D. Fasteners: Stainless steel

#### 2.3 WINDOW FRAMES

- A. One-piece construction of fiberglass reinforced plastic
- B. Minimum ¼" wall thickness
- C. Corner joints mitered or profiled for exact fit and mechanically joined with FRP clips and/or stainless steel fasteners
- D. Frame profile
  1. Maximum dimension: 5¾" deep by 2" wide face
  2. Single or double-rabbeted
  3. Maximum stop height: ¾"
- E. Glazing retainer clips

1. Materials: FRP or PVC
  2. Fasteners: Stainless steel
  3. Located on opposite of corrosive or high humidity environment
- F. Sizes: As indicated on Drawings
- G. Finish: Factory applied gelcoat, minimum thickness of 15 mils
1. True and consistent color throughout gelcoat
  2. Color: To be selected by Owner from manufacturer's standard colors
- H. Frame Anchors
1. Types recommended by manufacturer for project conditions
    - a. Masonry "T" anchors
    - b. Through-frame threaded anchors
  2. Provide full internal reinforcing at all through-frame anchors to prevent frame distortion
  3. Type 304 stainless steel or FRP reinforcing in corrosive and high humidity environments
  4. Spacing
    - a. Maximum edge spacing: 3 inches
    - b. Maximum center to center spacing: 16 inches
- I. Provide such installation instructions as are necessary to ensure proper installation of anchors
- J. Glazing
1. Fixed, single-panel glazing
  2. Weatherstrip or sealant on both sides of glazing seams to ensure gas-tight seal
  3. Glazing retainer clips to be bedded in sealant
  4. Provide all glazing accessories
  5. Refer to Section 08800 for glass types and thicknesses
- K. Accessories: Provide all necessary hardware, anchors, sealants and related items

## PART 3 - EXECUTION

### 3.1 GENERAL

- A. Coordinate structural design of building framing members to accommodate specified window assemblies
- B. Provide shop drawings reflecting project-specific conditions and details to assure complete coordination and compatibility of windows with all building components and installation requirements

### 3.1 INSPECTION

- A. Before installation, verify that openings are plumb and square and of proper dimension
- B. Frame defects or unsuitable conditions shall be reported to the Engineer before proceeding

### 3.2 INSTALLATION AND ADJUSTMENT

- A. Install windows accurately and according to manufacturer's instructions and approved shop drawings
- B. Frames
  1. Set frames accurately in accordance with details, straight and free of twist with head level and jambs plumb
  2. Rigidly anchor to walls and partitions and securely brace until surrounding work is completed
  3. Wherever possible, leave spreader bars in place until frames are securely anchored
- C. Complete installation of all sealants necessary. Coordinate with building construction

### 3.3 FIELD QUALITY CONTROL

- A. Water test all windows upon completion in the presence of the Engineer
- B. Conduct tests using a hose without nozzle and thoroughly wet the entire glass surface

### 3.4 PROTECTION

- A. Completely cover windows during spray painting, plastering, or other construction operations that might cause damage
- B. Complete clean-down of masonry prior to installation

### 3.5 FIELD COATING

- A. Field touchup of gelcoat shall be performed in strict accordance with the manufacturer's instructions
- B. Complete all adjacent work prior to cleaning and preparation for field touchup
- C. Mask all adjacent surfaces and otherwise protect during field touchup operations

### 3.6 CLEANING

- A. Leave all windows in a job clean condition

END OF SECTION