

## **SECTION 085645 - FLUSH GLAZED WINDOW UNITS**

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### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

#### **1.2 SUMMARY**

- A. Section Includes:
  - 1. Flush glazed window units for Bio-Hazard and cGMP compliance.
- B. Related Sections:
  - 1. Section 068315 - Acryloyl Engineered Polymer Wall and Ceiling Panels.
  - 2. Section 068318 - Gel Coat Fiberglass Reinforced Polymer Composite Wall and Ceiling Panels.
  - 3. Section 088000 - Glazing for glass to be installed in flush glazed window units.

#### **1.3 SUBMITTALS**

- A. Comply with Section 013300 - Submittal Procedures.
- B. Product Data: Submit manufacturer's product data including installation instructions.
  - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finish.
- C. Samples: Submit manufacturer's samples.
  - 1. Aluminum Profile 3 5/8" (92mm) throat opening
  - 2. Aluminum Profile 6" (150mm) throat opening
- D. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.
- E. Product Schedule: For flush glazed window units. Use same designations indicated on Drawings.

#### **1.4 QUALITY ASSURANCE**

- A. Source Limitations: Obtain window units from single manufacturer.

### **1.5 DELIVERY, STORAGE, AND HANDLING**

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Storage: Store materials in clean, dry area indoors in accordance with manufacturer's instructions.
- C. Handling: Protect materials and finish from damage during handling and installation in accordance with manufacturer's instructions.

### **1.6 ENVIRONMENTAL REQUIREMENTS**

- A. Do not install materials until building is enclosed and areas to receive materials are protected from dirt and dust.

### **1.7 WARRANTY**

- A. Warranty: Submit manufacturer's standard warranty. The manufacturer guarantees the product supplied shall be free of defects in material or workmanship under normal use and service.
  - 1. Warranty Period: Five years from date of delivery.

## **PART 2 - PRODUCTS**

### **2.1 MANUFACTURER**

- A. Basis of Design: Subject to compliance with requirements, provide the following by **ARCOPLAST, 1873 Williamstown Drive, St. Peters, Missouri 63376**. Toll Free (888) 736-2726. Phone (636) 978-7781. Fax (636) 978-7782. Web Site [www.arcoplast.com](http://www.arcoplast.com).
- B. The following components meet critical environment and high containment facility requirements. SUBSTITUTION ARE NOT ALLOWED.

### **2.2 FLUSH GLAZED WINDOW UNIT**

- A. Provide manufacturers fully assembled flush glazed extruded aluminum interior window assembly designed to provide an air, moisture, and gas leak tight unit; fully integrated and sealed into wall construction with manufacturers high strength sealant and finishing compound.
  - 1. Limited to installation with 3/8" (9.5mm) and 1/2" (12.7mm) wall panels.
  - 2. Resistant to Fungi & Bacteria and does not support microbial growth.
  - 3. Resistant to high pressure wash, sanitation, and decontamination regimen.
  - 4. Meets regulatory requirements including FDA 21 CFR
  - 5. Conforms to Laboratory Biosafety Guidelines: Public Health of Canada on Pressure Decay (leak tightness).

B. Components:

1. Single anodized aluminum window housing assembly.
2. Anodized aluminum window housing assembly with mullion post dividers.
3. Anodized aluminum window housing to incorporate 1 air vent louver .75" (19mm) diameter per vertical jamb section.
4. Desiccant bead packets per vertical jamb section.
5. Finish: Clear anodized, corrosion resistant.
6. Size: Custom.
7. Glazing: Accommodates 3/8 (9.5mm) inch thick glass (by others).
  - a. Single glazed.
  - b. Double glazed.
    - 1) Comply with Section 088000 "Glazing" for glass type.

C. Window Unit Accessories:

1. Extrusion Brackets: Galvanized angle bracket 1/8" (3mm)
2. Attachment Screws: Ultra Thin Wafer Self Drilling Screws # 8 x 5/8" (15mm) for steel stud applications and tapered wood screws of length and type as determined by manufacturer to attach window units in wood stud applications.
3. Structural Adhesive: A-2020 Methacrylate adhesive 1:1 mix – Translucent.
4. Tape Adhesive (for wall panel): 3M – VHB foam tape #4959 White - thickness 120 mils (3mm) x 1" (25mm) width.
5. Tape Adhesive (for glass): 3M – VHB foam tape #4956 Grey - thickness 62 mils (1.6mm) x 1/2" (12.5mm) width
6. Sealant and Finishing Compound A-1010 Bio-Seal:
  - a. Pick proof two-component, 1:1 mix, non-sag, non-porous, non-yellowing, high-gloss, odor-free, solvent-free sealant and finishing compound A-1010 Bio-Seal.
    - 1) Solids: 100 percent.
    - 2) Color: Match panel color.
    - 3) FDA Approved: Determination of Extractives Residue according to US FDA 21 CFR 177.2600 Arcoplast finishing compound/sealant.
    - 4) NSF Approved: Registration #148103.
7. Air vent louver: .75" (19mm) diameter.
8. Desiccant bead packets.

**PART 3 - EXECUTION**

**3.1 EXAMINATION**

- A. Examine substrates for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### **3.2 INSTALLATION**

- A. Comply with manufacturer's written instructions for installing window units.
- B. All walls shall be able to support load of wall mounted window units specified.
- C. Install window units, level, square, and in proper alignment.
- D. Windows are fully integrated into the steel / wood stud prior to the wall panel installation. Mechanically fastened and bonded to the framing members with structural adhesive.
- E. Apply structural adhesive or tape adhesive to furring, steel studs, or existing substrate in accordance with manufacturer's instructions.
- F. Sealants: Apply sealants in accordance with sealant manufacturer's instructions and shop drawings.
  - 1. Seal joints, openings, and penetrations in accordance with manufacturer's instructions and shop drawings.
- G. Apply Arcoplast pick proof finishing compound A-1010 Bio-Seal at windowsill, header, and vertical jambs interfacing with the Arcoplast panel finishes in accordance with manufacturer's instructions.
- H. Window units shall be installed and sealed per manufacturers written instructions to comply with project requirements and testing; including but not limited to the following:
  - 1. Rooms tested for positive/negative pressure.
  - 2. Room sterilized for micro-bacterial decontamination without risk of transfer of fumes to adjoining spaces.
  - 3. Rooms sealed to prevent cross-contamination between rooms and service corridors.
- I. Repair minor damages to window units finish in accordance with manufacturer's instructions and as approved by Architect.
- J. Remove and replace damaged components that cannot be successfully repaired as determined by Architect.

### **3.3 PROTECTION**

- A. Protect installed window units from damage.
- B. Allow 24 hours curing time before pressure wash down sanitation procedures.

**END OF SECTION 085645**