SECTION 08555
FIBERGLASS WINDOWS

PART 1 – GENERAL

1.01 SUMMARY

A. Section Includes: Fiberglass windows with painted exterior and interior finish of the following type:

1.02 SUBMITTALS

A. Submit shop drawings to Architect.

B. Submit product data to Architect.

C. Samples
   1. Submit corner section to Architect.
   2. Including glazing system, quality of construction, and specified finish.

1.03 QUALITY ASSURANCE

A. Overall Standards: Comply with ANSI/AAMA/101/IA.2, except as otherwise noted herein.

B. Qualifications:
   1. Manufacturer Qualifications:
      a. Minimum ten years experience in producing fiberglass windows.
      b. Member AAMA, NFRC.


D. Certifications for insulated glass windows:
   1. AAMA: Windows shall be Silver Label certified with label attached to frame per AAMA requirements.
   2. NFRC: Windows shall be NFRC certified with temporary U-factor label applied to glass and an NFRC tab added to permanent AAMA frame label.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Provide cardboard corner boots and full stretch wrap shipping protection.

B. Follow manufacturer's instructions on label applied to windows.

1.05 WARRANTY

A. Commercial Warranty:
   1. 10 year warranty.
   2. Guarantee windows against defects in materials and workmanship including costs for parts and labor. Wood veneer surfaces are required to be finish coated per manufacturer's instructions.

PART 2 – PRODUCTS

2.01 MANUFACTURED UNITS

A. Milgard Ultra as manufactured by Milgard Manufacturing, Inc. Tacoma, WA
   or
B. 325 Series as manufactured by Serious Materials, Longmont, CO
   or
C. Fibertec fiberglass window system as manufactured by Fibertec, Concord, ON, Canada
   or
D. Approved equal.

2.02 MATERIALS

A. Fiberglass: AAMA 305 glass fiber reinforced thermoset profile.
2.03 GENERAL PERFORMANCE REQUIREMENTS

A. Thermal Performance: Center of glass U-value 0.25, SHGC 0.40, VT 0.70.

B. Forced Entry ASTM F-588 Grade 20, Air infiltration 0.07, Water resistance 6.89 psf, Structural test pressure 45.11 psf.

2.04 WINDOW TYPES

A. Single-Hung with Z-Bar flush fin retrofit trim or anchor straps.
   1. Frame: Minimum 3-1/4 inch (108 mm) deep, multi-chambered foam-filled 0.090” fiberglass pultrusion.
   2. Sash: Minimum 1-9/16 inch (39.7 mm) deep, multi-chambered foam-filled 0.090” fiberglass pultrusion.
   3. Sightlines: Equal for operating and fixed sash.
   5. Hardware:
      a. Concealed block and tackle balancer.
      b. Sash lift.
      c. Cam-style lock and keeper, ultra-lift balances.

2.05 GLAZING

A. Insulated Glass Units: ASTM E 774, Class A, 7/8 inch (22 mm) thick overall:
   1. Glazing Type: Coating shall be “LoE-272” as manufactured by Cardinal or “Solarban 60” as manufactured by PPG.
      Argon fill. Tempered glass where specified and/or required.
   2. Spacer type: Foam based warm edge spacer system.

2.07 INSECT SCREENS:

A. Provide tight-fitting screen for operating sash with hardware to allow easy removal.
   1. Screen Cloth: Fiberglass screen mesh
   2. Frame: Roll formed aluminum frame

2.08 FABRICATION

A. Fabricate frames and panels with milled and mitered joints and mechanically joined corners. Trim and finish corners to match adjacent surfaces.

B. Provide concealed metal reinforcement in sash frame for attaching lock mechanism.

C. Factory exterior wet silicone glaze with snap-on fiberglass glazing stops matching interior sash and frame finish, except where field glazing is required due to large window unit dimensions (over 40 sf (3.72 m2)). Insulating units shall be reglazeable without dismantling sash framing.

2.09 FINISH

A. Frame and Sash.
   1. Exterior: Paint color is baked on enamel to match exterior finish of existing windows.
   2. Interior: White baked on enamel.

B. Hardware: Oil-rubbed bronze finish

C. Screen Frame Color:
   1. Exterior Mounted Screens: Match frame to exterior window frame and sash color.

2.10 SOURCE QUALITY CONTROL

A. Inspect windows in accordance with manufacturer's Quality Control Program
PART 3 – EXECUTION

3.01 EXAMINATION

A. Examine openings in which windows will be installed.
   1. Verify that fasteners in framed walls are fully driven and will not interfere with window installation.
   B. Coordinate with responsible entity to correct unsatisfactory conditions.
   C. Commencement of work by installer is acceptance of substrate conditions.

3.02 INSTALLATION

A. Install windows in framed walls in accordance with AAMA 2400.
   1. Provide continuous shim support along full length of sill.
   B. Do not remove temporary labels.
   C. Install insect screens on operable sash.

3.03 CLEANING

A. Remove temporary labels and retain for Closeout Submittals.
   B. Clean soiled surfaces and glass using a mild detergent and warm water solution with soft, clean cloths.

END OF SECTION