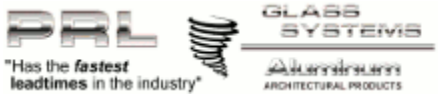

SECTION 08 41 13
ALUMINUMSTOREFRONTS

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PART 1 GENERAL

1.1 SECTION INCLUDES

A. Aluminum storefronts.

1.2 RELATED SECTIONS

A. Section 05 52 17 - Roof Fall Protection.

B. Section 08 43 26 - All-Glass Storefronts.

C. Section 08 43 33 - Folding Glass Wall System.

D. Section - .

E. Section 08 81 00 - Glass Glazing.

F. Section 08 44 13 - Glazed Aluminum Curtain Walls.

1.3 REFERENCES

A. ASTM International (ASTM):
1. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
2. ASTM E 283 - Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors under Specified Pressure Differences across the Specimen.
3. ASTM E 330 - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
4. ASTM E 331 - Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.

1.4 SUBMITTALS

A. Submit under provisions of Section 01 30 00 - Administrative Requirements.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
1. Preparation instructions and recommendations.
2. Storage and handling requirements and recommendations.
3. Installation methods.

C. Shop Drawings: Configuration and details for installation, maintenance and operation.

D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.

E. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square representing actual product, color, and patterns.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: Minimum 5 year experience manufacturing similar products.

B. Installer Qualifications: Minimum 2 year experience installing similar products.

C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
1. Finish areas designated by Architect.
2. Do not proceed with remaining work until workmanship is approved by Architect.
3. Refinish mock-up area as required to produce acceptable work.

1.6 PRE-INSTALLATION MEETINGS

A. Convene minimum two weeks prior to starting work of this section.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver and store products in manufacturer's unopened packaging bearing the brand name and manufacturer's identification until ready for installation.

B. Handling: Handle materials to avoid damage.

1.8 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

1.9 SEQUENCING

A. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: PRL Glass Systems, Inc., which is located at: 13644 Nelson Ave.; City of Industry, CA 91746; Toll Free Tel: 800-433-7044; Fax: 626-968-9256; Email:request info (info@prlglass.com); Web:https://prlglass.com

B. Substitutions: Not permitted.

C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

2.2 ALUMINUM STOREFRONT

A. Product: Aluminum Storefront Series as manufactured by PRL Glass Systems, Inc.

B. Design:
1. Framing sections shall be extruded from 6063-T5 aluminum alloy.
2. Glazing beads shall be NS (non-stretch, high-shore) vinyl used on both sides of the glass. Vinyl shall incorporate a fiberglass cord bonded with the vinyl.
3. Sections shall conform to details and shall present clean, straight, sharply defined

lines, and shall be free from defects impairing strength or durability.

4. Screws, nuts, bolts and fastening devices and internal components shall be of aluminum, stainless steel or other non-corrosive material.
5. Factory preparation from detail drawings shall be so fabricated that field assembly will be able to produce accurate, tightly fitted joints.

C. 201-Series (2 X 4-1/2 Offset Glaze For 1/4 Glazing):
   1. Performance: (Test sample of 10 feet (3048 mm) wide by 10 feet (3048 mm) high - 3 lites wide by 2 lites high).
      a. Air infiltration: Limit air leakage through fixed glazing and frames to 0.045 cfm/ft^2/min when tested in accordance with ASTM E-283 at a cross pressure of 6.24 psf (0.30 kPa).
      b. Water Penetration under Static Pressure: System shall not evidence uncontrolled water penetration at a cross pressure of 6 psf (0.29 kPa) when tested in accordance with ASTM-E331-00.
      c. Uniform Load Structural per ASTM E 330: Limit deflection to L/175.
         1) Passed at Design Pressure of 20 psf (0.96 kPa).

D. 250-Series (2 X 4-1/2 Center Glaze For 1 Glazing):
   1. Performance: (Test sample of 10 feet (3048 mm) wide by 10 feet (3048 mm) high - 3 lites wide by 2 lites high).
      a. Air infiltration: Limit air leakage through fixed glazing and frames to 0.039 cfm/ft^2/min when tested in accordance with ASTM E-283 at a cross pressure of 6.24 psf (0.30 kPa).
      b. Water Penetration under Static Pressure: System shall not evidence uncontrolled water penetration at a cross pressure of 6 psf (0.29 kPa) when tested in accordance with ASTM-E331-00.
      c. Uniform Load Structural per ASTM E 330: Limit deflection to L/175.
         1) Passed at Design Pressure of 20 psf (0.96 kPa).

E. 251-Series (2 X 4-1/2 Offset Glaze for 1 Glazing) :
   1. Performance: (Test sample of 10 feet (3048 mm) wide by 10 feet (3048 mm) high - 3 lites wide by 2 lites high).
      a. Air infiltration: Limit air leakage through fixed glazing and frames to 0.039 cfm/ft^2/min when tested in accordance with ASTM E-283 at a cross pressure of 6.24 psf (0.30 kPa).
      b. Water Penetration under Static Pressure: System shall not evidence uncontrolled water penetration at a cross pressure of 6 psf (0.29 kPa) when tested in accordance with ASTM-E331-00.
      c. Uniform Load Structural per ASTM E 330: Limit deflection to L/175.
         1) Passed at Design Pressure of 20 psf (0.96 kPa).

F. 400-Series (1-3/4 X 4 Center Glaze For 1/4 Glazing):
   1. Performance: (Test sample of 10 feet (3048 mm) wide by 10 feet (3048 mm) high - 3 lites wide by 2 lites high).
      a. Air infiltration: Limit air leakage through fixed glazing and frames to 0.041 cfm/ft^2/min when tested in accordance with ASTM E-283 at a cross pressure of 6.24 psf (0.30 kPa)
      b. Water Penetration under Static Pressure: System shall not evidence uncontrolled water penetration at a cross pressure of 6 psf (0.29 kPa) when tested in accordance with ASTM-E331-00.
      c. Uniform Load Structural per ASTM E 330: Limit deflection to L/175.
         1) Passed at Design Pressure of 20 psf (0.96 kPa).

G. 401-Series (1-3/4 X 4 Offset Glaze for 1/4 Glazing):
   1. Performance: (Test sample of 10 feet (3048 mm) wide by 10 feet (3048 mm) high - 3 lites wide by 2 lites high).

a. Air infiltration: Limit air leakage through fixed glazing and frames to 0.037 cfm/ft^2/min when tested in accordance with ASTM E-283 at a cross pressure of 6.24 psf (0.30 kPa).
b. Water Penetration under Static Pressure: System shall not evidence uncontrolled water penetration at a cross pressure of 6 psf (0.29 kPa) when tested in accordance with ASTM-E331-00.
c. Uniform Load Structural per ASTM E 330: Limit deflection to L/175.
1) Passed at Design Pressure of 20 psf (0.96 kPa).

H. 450-Series (1-3/4 X 4-1/2 Center Glaze for 1/4 Glazing):
1. Performance: (Test sample of 10 feet (3048 mm) wide by 10 feet (3048 mm) high - 3 lites wide by 2 lites high).
a. Air infiltration: Limit air leakage through fixed glazing and frames to 0.042 cfm/ft^2/min when tested in accordance with ASTM E-283 at a cross pressure of 6.24 psf (0.30 kPa).
b. Water Penetration under Static Pressure: System shall not evidence uncontrolled water penetration at a cross pressure of 6 psf (0.29 kPa) when tested in accordance with ASTM-E331-00.
c. Uniform Load Structural per ASTM E 330: Limit deflection to L/175.
1) Passed at Design Pressure of 20 psf (0.96 kPa).

2.3 DOORS

A. Narrow Stile:
1. 2 inches (51 mm) stile and rail.
2. Strong reinforced corner construction permits use in heavy traffic areas of commercial applications.
3. Narrow stile Center pivot single acting.
4. Offset pivot single acting.
5. Butt hinge single acting.

B. Medium Stile:
1. 3-1/2 inches stile with 3-1/4 inches rail.
2. Medium stile Center pivot double acting
3. Offset pivot single acting
4. Butt hinge single acting.
5. A top performance door with a medium stile that accommodates standard and custom hardware and panic devices for commercial and institutional applications.
6. Strong reinforced corner construction increases size limitation to a 4'-0" door width 9'0" maximum door height.

C. Wide Stile:
1. 5 inches (127 mm) stile with 5-1/8 inches (130 mm) rail.
2. Wide stile Center pivot double acting
3. Offset pivot single acting
4. Butt hinge single acting.
5. A monumental type door with strength and stability for heavy use. The wide stiles will accommodate most all standard and unusual hardware designs and operation requirements. Size limitations are 4'-0" door width and 9'0" maximum door height.

D. Custom Door:
1. Offer style and performance with unlimited adaptability to specific design requirements with combinations of stiles, top/bottom rails and intermediate vertical/horizontal muntins, will receive most standard pivot/hinges, lock and security hardware. Strong reinforced corner construction permits its use on a wide variety of applications. Some limitations apply please consult PRL Aluminum for details.

E. Accessories:
1. ADA Bottom Rail: 10-1/2 inches (267 mm) high.
2. Threshold: 4 inches (102 mm) extruded aluminum
a. Finish: Mill.
b. Finish: Clear anodized.
c. Finish: Bronze.
3. Threshold: 5 inches (127 mm) extruded aluminum
a. Finish: Mill.
b. Finish: Clear anodized.
c. Finish: Bronze.
4. Threshold: 5 inches (127 mm) extruded aluminum with bulb seal.
a. Finish: Mill.
b. Finish: Clear anodized.
c. Finish: Bronze.
5. Threshold: 7 inches (178 mm) extruded aluminum.
a. Finish: Mill.
b. Finish: Clear anodized.
c. Finish: Bronze.

F. Hardware:
1. Refer to Section 08 71 53 - Security Door Hardware.

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions.

3.4 FIELD QUALITY CONTROL

A. All joints between metal and masonry shall be fully caulked and field tested to resist water leakage with provisions taken to drain infiltrated water.

3.5 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION