

1995 CSI SECTION 08911 Glazed Aluminum Curtain Wall
2004 CSI SECTION 08 44 13 Glazed Aluminum Curtain Wall

Part 1 – General

1.01 Summary

- A. Section includes:
 - 1. Glazed Aluminum Curtain Wall
 - a. Arcadia, Inc., T500 Series (OPG-3010), 3" x 10" pressure plate glazed system for 1/4", 3/8", 5/8", 1", 1-1/8" glass.
- B. Related Sections:

1.02 References

- A. American Architectural Manufacturers Association (AAMA)
- B. American Society for Testing and Materials (ASTM)
- C. Aluminum Association (AA)
- D. UFC 4-010-01

1.03 System Description

- A. General: In addition to requirements shown or specified, comply with:
 - 1. Applicable provisions of AAMA Metal Curtain Wall Manual for design, materials, fabrication and installation of component parts.
- B. Design Requirements: Arcadia T500B Series is a self-supporting curtain wall, with pressure plate and covers attached to the tongue of back member. Provides for two-color capability.
- C. Performance Requirements:
 - 1. Limit air leakage through assembly to 0.06 CFM/min/sq. ft. (.00003 m³/sm²) of wall area at 6.24 PSF (300 Pa) as measured in accordance with ASTM E283.
 - 2. Water Resistance: No water leakage when measured in accordance with ASTM E331 with a static test pressure of 15 PSF.
 - 3. Dynamic Water Resistance: No water leakage, when measured in accordance with AAMA 501.1-94 with a dynamic test pressure of 15 PSF.
 - 4. Uniform Load Deflection under () psf positive and () psf negative design wind pressure normal to the plane of the wall, shall not exceed L/175 of the clear span or 3/4", when tested in accordance with ASTM E 330.
 - 5. Uniform Load Structural at a pressure 1.5 times the design wind pressure in accordance with ASTM E 330.
 - 6. System shall not deflect more than 1/8" at the center point, or 1/16" at the center point of a horizontal member, once deadload points have been established.
 - 7. System shall accommodate expansion and contraction movement due to surface temperature differential of 180 degrees F.
 - 8. Condensation Resistance Factor (CRF) in accordance with AAMA 1503.1-88 shall not be less than 55.
 - 9. Thermal Transmittance (U-Value) in accordance with AAMA 1503.1-88 shall not be more than .65 BTU,hr/degree F/SF.
 - 10. Sound transmission in accordance with ASTM E 90.
 - 11. National Fenestration Rating Council (NFRC) specific application evaluation.
 - 12. System to meet UFC 4-010-01, October 2003, DoD Minimum Antiterrorism Standard for Buildings".
 - 13. System to use minimum of 6-mm (1/4") laminated glass with .030 interlayer.
 - 14. The glazing shall have a minimum 25-mm (1") glass bite for non-structural glazing.

1.04 Quality Assurance

- A. Single Source Responsibility:
 - 1. Obtain entrances, storefronts, ribbon walls, window walls, curtain walls, window systems, and finish through one source from a single manufacturer.
- B. Provide test reports from AAMA accredited laboratories certifying the performances as specified in 1.03.

1.05 Warranty

- A. System shall be warranted against failure and/or deterioration of metals due to manufacturing process for a period of two (2) years.

Part 2 – Products

2.01 Manufacturers

- A. Acceptable Manufacturers:
 - 1. Arcadia, Inc., 2301 East Vernon, Vernon, CA. Telephone 323/269-7300, Fax 323/269-7390.
- B. Acceptable Products:
 - 1. Arcadia, Inc., T500 Series (OPG-3010).

2.02 Framing Materials and Accessories

- A. Framing members, transition members, mullions, adaptors, and mounting: Extruded 6063-T6 aluminum alloy (ASTM B221 – Alloy G.S. 10a T6).
- B. Screws, fastening devices, and internal components: Aluminum, stainless steel, or zinc-plated steel in accordance with ASTM.A-164. Perimeter anchors shall be aluminum or steel, providing the steel is properly isolated from aluminum.
- C. Glazing Gasket
 - 1. Compression-type design, replaceable, molded or extruded santoprene, polyvinyl chloride (PVC), or ethylene propylene diene monomer (EPDM).

2.03 Finish

- A. Finish all exposed areas of aluminum and components as indicated.
 - 1. An Architectural Class II or I color anodic coating conforming with AA-M12C22A34/AA-M12C22A44.
 - a. Anodized finish color shall be Colornodic _____. (AB1 Light Champagne, AB2 Champagne, AB3 Light Bronze, AB4 Medium Bronze, AB5 Standard Medium Bronze, AB6 Dark Bronze, AB7 Standard Dark Bronze, AB8 Black.)
 - (or) 1. An Architectural Class II or I anodic coating conforming with AA-M12C22A31/AA-M12C22A41.
 - a. Anodize finish color shall be Colornodic _____ (#11 Clear)
 - (or) 1. Fluorocarbon Coating: AAMA 2605.2.
 - a. Resin: 70% PVDF Kynar 500/Hylar 5000.
 - b. Substrate: cleaned and pretreated with chromium phosphate.
 - c. Primer: Manufacturer's standard resin base compatible coating. Dry film thickness.
 - (a) Extrusion: Minimum 0.20 mil.
 - d. Color Coat: 70% PVDF, dry film thickness.
 - (a) Extrusion: 1.0 mil.
 - e. Color: As selected by Architect.
 - f. Acceptable Coatings Manufacturers:
 - (a) PPG Industries, Inc.
 - (b) Valspar Corporation
 - (c) BASF

2.04 System Fabrication

- A. Provisions shall be made at all sealed horizontals to keep moisture accumulation to the exterior.
- B. There shall be no exposed fasteners at perimeter sections.

Part 3 – Execution

3.01 Examinations

- A. Examine conditions and verify substrate conditions are acceptable for product installation.

3.02 Installation

- A. Install in accordance with approved shop drawings and manufacturers installation instructions.

3.03 Field Quality Control

- A. Test the curtain wall for water leaks in accordance with AAMA 501.2. Conduct test in the presence of the Architect. Correct deficiencies observed as a result of this test.

END OF SECTION