



1995 CSI SECTION 08116 Aluminum Terrace Doors
2004 CSI SECTION 08 11 16 Aluminum Doors and Frames

Part 1 – General

1.01 Summary

- A. Section includes:
 - 1. Hinged Swing Aluminum Terrace Doors

1.02 References

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

1.03 System Description

- A. Design Requirements: Arcadia TD400 Residential Series
- B. Performance Requirements: Each assembly shall be tested by a recognized testing laboratory or agency in accordance with specified test methods.
 - 1. Air Infiltration: Accordance with ASTM E 283 @ 1.57 PSF
 - 2. Water Resistance: Accordance with ASTM E 331 @ 2.90 PSF.

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. Warranted against failure and/or deterioration of metals due to manufacturing process for a period of one (1) year providing the product was installed in accordance with Arcadia's installation instructions and maintained in accordance with Arcadia's operations and maintenance manual.

Part 2 – Products

2.01 Manufacturers

- A. Acceptable Manufacturers:
 - 1. Arcadia, Inc., 2301 E Vernon, Vernon, CA.
Telephone 323/269-7300, Fax 323/269-7390.
- B. Acceptable Products:
 - 1. Arcadia, TD400 Residential Series.

2.02 Materials

- A. All doors shall be fabricated from aluminum extrusions of 6063-T6 alloy and temper with a minimum wall thickness of 0.065" for the frame sash members & glass stops. The aluminum shall be free of defects which impair strength and appearance.
- B. Component parts and accessories shall be of aluminum alloy, stainless steel or non-metallic materials, which will neither deteriorate nor promote corrosion.
- C. All aluminum profiles are extruded and thermally broken by means of two (2) continuous polyamide bars 18mm (0.708 inch) wide with 25% glass fiber content as per standard ASTM D 5630. These polyamide bars have a tensile strength of 652,000 psi as per standard ASTM D638 and are attached to the aluminum extrusions via continuous mechanical crimping. Prior to the crimping, both aluminum profiles have to be properly knurled.
- D. The standard sill has a 2-3/8" height. A special ADA flush sill is also available for this door.
- E. The Frame is 82 mm (3 1/4") in depth. The sash is 75mm (2 15/16") in depth. Frame & sash are overall 133mm (5 1/4") in width. The threshold central gasket is protected from pedestrian traffic by an aluminum extrusion referred to as the "threshold".
- F. This door incorporates an open joint design with weep holes that prevent accumulation of condensation & water. The polyamide bars have suitable geometrical shape to avoid water-stagnation.
- G. **Hardware:** Hinges are fabricated from extruded aluminum with non-removable & non-magnetic stainless steel hinge shaft. Hinges provide horizontal adjustment of +/- 1.00 mm (.039"). Hinge installation does not require machining of profiles. The lock is a multi-point type, reversible & corrosion resistant. The lock includes adjustable rolling pins, dead bolt & latch, mortise construction with reinforced lever spring system. 5 pin cylinder with "C" Schlage key profile. A door limiter arm is provided as an option. Handles are made of Cast Brass or Zinc Substrates, and provided in Plated Finishes, or Powder Coated

Colors to match or compliment the aluminum door extrusions. These handles are of the lever type with a 8mm Steel Spindel.

- H. **Assembly:** The joinery between the horizontal & vertical profiles must fit perfectly and be aligned for both sides, internal & external. Corner joint will be assembled using extruded or die cast heavy duty corner-cleats. These corner cleats are either crimped or riveted in place at each corner joint and then corner joint filled with a 2-part epoxy to ensure no movement and permanent set. The joinery between horizontal & vertical profiles must be carefully sealed before final assembly.
- I. The glazing beads must be fitted by snap or bayonet method. They are positioned directly into the channels of the aluminum profiles using an EPDM gasket that provides better air & water tightness. All gaskets are made of EPDM. The central gasket is to form a continuous and tight seal. Pre-formed vulcanized corners are used. Central-gasket joints are cut at a 90 degree angle and bonded to the vulcanized corners. A one piece vulcanized central gasket can be used as an alternative to the above solution. The glazing is accomplished via EPDM wedge gaskets and appropriate aluminum glass stops to accommodate 1" or 1-1/16" IG Glass.
- J. All assembly and installation screws shall be 18-8 or 410 stainless steel.

2.03 Finish

- B. 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.
 - 1. 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

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. Contractor's responsibility to make all necessary final adjustments to attain normal operation of each and its mechanical hardware.