

# Aluminum Tube Railings™ Guide Specification

## Introduction

These guide specifications are intended to be used as the basis for developing basic job specifications and must be edited to fit specific job requirements. This is neither a complete specification nor is it intended to serve as a complete specification. Inapplicable provisions should be deleted, appropriate information should be provided in the blank spaces, and provisions applicable to the job should be added as necessary. Items, which represent an option or choice, are enclosed in brackets [ ] or braces { }. Notes to specifiers are given in *Italics*.

## Scope Of Work

Furnish and install Aluminum Tube Railings™ produced by ATR Technologies, Inc. as shown on contract drawings. Aluminum railing components indicated are as manufactured by ATR Technologies, Inc., 805 Towne Center Drive, Pomona, CA 91767-5901. Shop drawings shall be submitted for approval prior to beginning work. Shop drawings shall show railing details, connections, layout dimensions, rail sections with part numbers, materials and finish. Expanded Polystyrene (EPS) or Styrofoam blockouts to be provided for post pockets and set by the General Contractor according to ATR's shop drawing details and/or instructions. For alternate anchorage methods, adequate backing shall be provided by the General Contractor. Alternate anchorage details shall be furnished in ATR's shop drawing details as required for approval.

## Materials And Design

Rail sections and all exposed components shall be 6063-T6 or 6005-T5 aluminum alloy. All fasteners shall be [aluminum] [cadmium plated steel] [Stainless Steel]. The railing shall be designed to withstand a uniform lateral load of [20 pounds per lineal foot] [50 pounds per lineal foot] applied at the top of rail. Fasteners shall be concealed as per ATR Technologies, Inc. standard procedures. Railing samples shall be submitted for the architect's approval if required.

## Finish

*Specifier may use the following section for Anodized Finish requirements:*

### ANODIZED FINISH

All exposed aluminum tube railing sections to receive Class I

[Clear Anodize per Aluminum Association Designation: (AA-M12 C22 A41)]

[Gold Anodize per Aluminum Association Designation: (AA-M12 C22 A43)]

[Medium Bronze Anodize per Aluminum Association Designation: (AA-M12 C22 A44)]

[Dark Bronze Anodize per Aluminum Association Designation: (AA-M12 C22 A44)]

[Black Anodize per Aluminum Association Designation: (AA-M12 C22 A44)]

with a minimum thickness of 0.7 mil.

*End of Anodized Finish section*

*Specifier may use the following sections for Organic Finish requirements:*

### ORGANIC FINISH

All exposed aluminum tube railing sections to receive an organic coating.

*Specifier must select one of the following options to complete the organic finish section.*

#### *Organic Finish, OPTION #1*

[Painted finish shall be a baked enamel type that meets the requirements of AAMA 2605-05 (Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels). Finish shall be 70% Fluorocarbon Resin - Kynar 500 by Atochem North America or Hylar 5000 by Ausimont USA, Inc. applied over the manufacturer's recommended inhibitive primer. Applicator may use a chrome chemical conversion coating pretreatment process or a non-chrome conversion coating pretreatment process according to the supplier's recommendations in order to comply with AAMA 2605-05.

#### *Organic Finish, OPTION #2*

[Painted finish shall be a type that meets the requirements of AAMA 2604-05 (Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels). One of the following applications may be used:

1. Finish shall be a baked enamel containing 70% Fluorocarbon Resin - Kynar 500 by Atochem North America or Hylar 5000 by Ausimont USA, Inc. applied over the manufacturer's recommended inhibitive primer. The applicator may use a non-chrome chemical conversion coating pretreatment process in order to comply with AAMA 2604-05.
2. Finish shall be a baked enamel containing 50% Fluorocarbon Resin Products or Silicone Polyester applied over the manufacturer's recommended primer. Applicator may use a chrome chemical conversion coating pretreatment process or a non-chrome conversion coating pretreatment process according to the supplier's recommendations in order to comply with AAMA 2604-05.
3. Finish shall be a High Performance power coating in order to comply with AAMA 2604-05.]

#### *Organic Finish, OPTION #3*

[Painted finish shall be a type that meets the requirements of AAMA 2603-02 (Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels). One of the following applications may be used:

1. Finish shall be a baked enamel containing Polyester, Acrylic or High Solids applied in accordance with AAMA 2603-02.
2. Finish shall be an exterior quality power coating applied in accordance with AAMA 2603-02.]

#### *Organic Finish, Color selection*

Color: [As selected from manufacturer's standard colors] [Custom color as selected by Architect] [To match brand name, color number color number]

*End of Organic Finish section*

## **Workmanship And Installation**

Aluminum Tube Railings™ to be fabricated according to approved shop drawings and actual field dimensions. All materials shall be installed plumb, square, level and shall be anchored securely in proper alignment with adjacent work. Posts shall be anchored according to approved shop drawings. Adequate provisions shall be made for thermal expansion and contraction of all exterior railings. All miters and field cuts shall be smoothed after joining. Where aluminum is placed in contact with dissimilar materials, the entire aluminum surface shall be protected by a vinyl tape or epoxy/polyurethane paint barrier.

## **Final Acceptance**

The railing sub-contractor shall complete the railings for final inspection and acceptance as installed according to the contract requirements. The General Contractor shall be responsible for protecting the installed railings from subsequent operations of other trades during the balance of construction.

## **Cleaning And Maintenance Of Aluminum Railing**

Aluminum Tube Railings™ by ATR Technologies, Inc. are virtually maintenance free. Exterior installations are generally self-cleaning where seasonal rains rinse off dust and debris. When heavier deposits are subject to occur, refer to the following cleaning instructions:

*Specifier may use the following section for Anodized Finish requirements:*

#### **ANODIZE FINISH**

NO ABRASIVE AGENT SHALL BE USED. Aluminum with an *anodized finish* shall be cleaned with plain water containing a mild soap or detergent. When preferred, an *anodized finish* shall be cleaned with white gasoline, kerosene or distillate.

*End of Anodized Finish section*

*Specifier may use the following section for Anodized Finish requirements:*

#### **PAINT FINISH**

NO ABRASIVE AGENT SHALL BE USED. Aluminum with a *painted finish* shall be cleaned with plain water containing a mild soap or detergent.

*End of Organic Finish section*