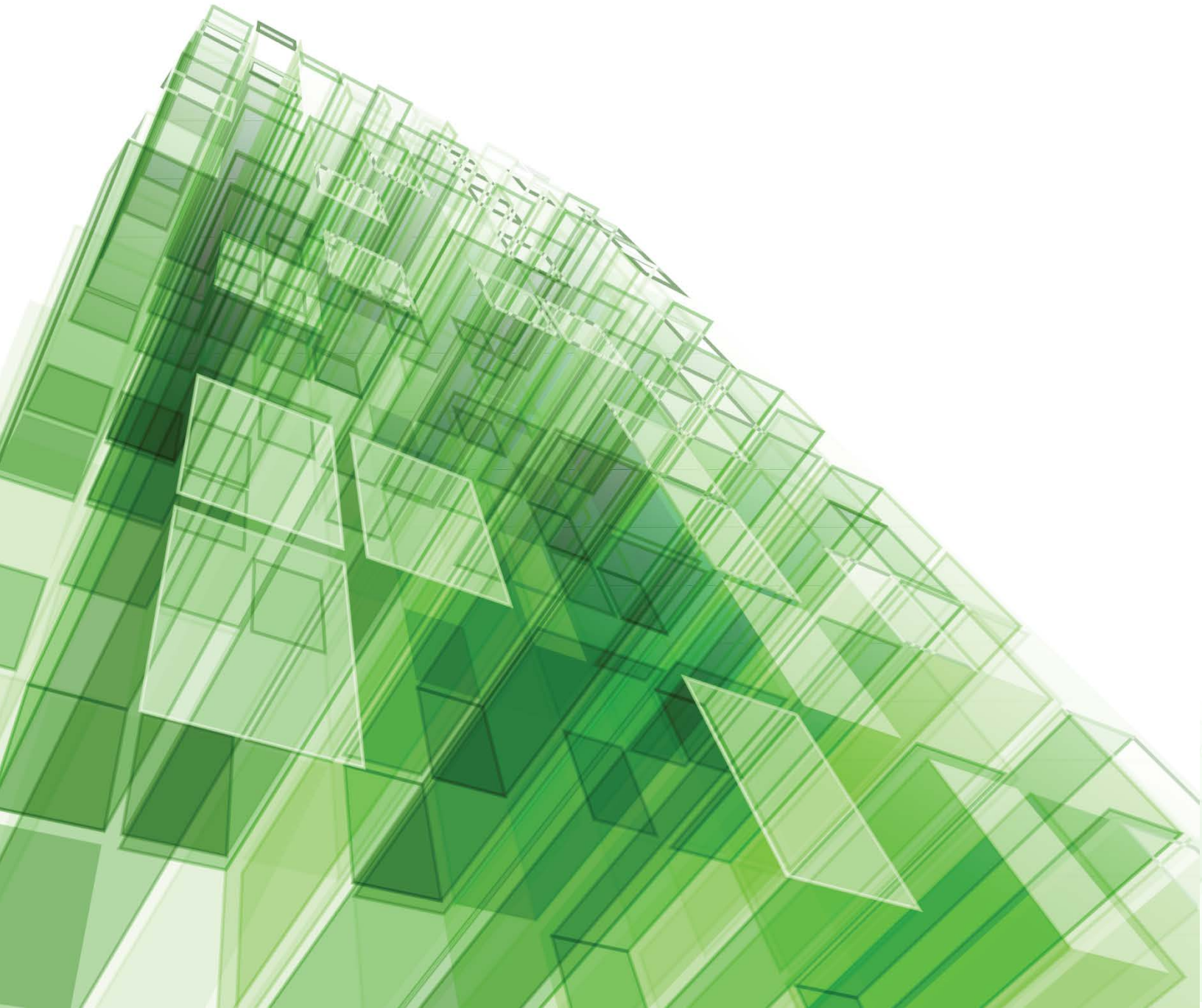




# Guide Specifications for Powder Coatings

Section 050513 - Shop Applied Coatings for Metal

Release: September 2016



Please review carefully and edit to meet the requirements of the project and local building code. Coordinate this section with other specification sections and Drawings. **Delete all “Note to Specifier” after editing.**

Section numbers and titles are from *MasterFormat 2014 Update*.

## Section 050513 – Shop Applied Coatings for Metal

### Note to Specifier:

This Specification covers Axalta shop-applied Architectural Coatings for Metal and Fiberglass Pultrusions. Please contact Axalta to assist in editing this section for your specific application if needed.

### Part 1 – General

#### 1.1 Section Includes:

- A. Shop-applied Architectural Coatings for Metal

#### 1.2 Related Sections:

### Note to Specifier:

Please list section number and title in A below, choose from the listed examples B-II or as needed for your specific application

A	_____
B	01 81 13 Sustainable Design Requirements
C	05 12 00 Structural Steel Framing
D	05 14 00 Structural Aluminum Framing
E	05 31 00 Steel Decking
F	05 33 00 Aluminum Decking
G	05 34 00 Acoustical Metal Decking
H	05 35 00 Raceway Decking Assemblies
I	05 40 00 Cold-Formed Metal Framing
J	05 51 00 Metal Stairs
K	05 52 00 Metal Railings
L	05 58 00 Formed Metal Fabrications
M	05 59 00 Metal Specialties
N	05 71 00 Decorative Metal Stairs
O	05 73 00 Decorative Metal Railings
P	07 42 00 Wall Panels
Q	07 44 33 Metal Faced Panels
R	07 46 16 Aluminum Siding
S	07 46 19 Steel Siding
T	08 11 16 Aluminum Doors and Frames
U	08 11 63 Metal Screen and Storm Doors and Frames

V	08 11 66 Metal Screen Doors and Frames
W	08 12 00 Metal Frames
X	08 13 00 Metal Doors
Y	08 33 00 Coiling Doors and Grilles
Z	08 34 00 Special Function Doors
AA	08 40 00 Entrances, Storefronts, and Curtain Walls
BB	08 51 00 Metal Window
CC	08 61 13 Metal Roof Windows
DD	08 63 00 Metal-Framed Skylights
EE	08 90 00 Louvers and Vents
FF	09 51 33 Acoustical Metal Pan Ceilings
GG	09 56 16 Metal Panel Textured Ceilings
HH	09 96 23 Graffiti-Resistant Coatings

### 1.3 References

A	AAMA 2603 – Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels
B	AAMA 2604 – Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels
C	AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels
D	AAMA CW-10-15 - Care and Handling of Architectural Aluminum from Shop to Site
E	ISO 12944 – Corrosion Protection of Steel Structures by protective paint systems
F	ASTM B117 – Standard Practice for Operating Salt Spray (Fog) Apparatus
G	ASTM G85 Annex A5 – Dilute Electrolyte Cyclic Fog/Dry Test
H	ASTM D2244 - Standard Practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates
I	ASTM D4214 - Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films
J	ASTM D7091 - Standard Practice for Nondestructive Measurement of Dry Film Thickness of Nonmagnetic Coatings Applied to Ferrous Metals and Nonmagnetic, Nonconductive Coatings Applied to Non-Ferrous Metals

### 1.4 Submittals

A	General: Submit in accordance with Section 013300
1	Submit submittals of this section simultaneously with submittals of sections with components with finishes specified in this section
B	Product Data:
1	Product data for each coating
2	Color Charts for finish indicating manufacturer’s colors available for selection
3	Include sample of warranty customized for this Project

- C Samples for initial selection: Submit (\_\_\_by\_\_\_ inch) sample of each finish, color and gloss level
- D Samples for final selection: Submit (\_\_\_by\_\_\_ inch) sample of each finish, color, gloss level and substrate
- E Closeout Submittals: Submit following in accordance with Section 017800
  - 1 List of final colors including manufacturers information
  - 2 Cleaning and maintenance Data
- F Approved Applicator Guidelines

### 1.5 Quality Assurance

- A Applicator Qualifications: Applicator must regularly engage in the application of shop-applied coating systems for projects of similar type to that specified. Applicator must also be equipped, trained and approved for the application of the specified coating system and also be approved to provide a warranty as specified in this section
- B Manufacturer's Qualification: Coating Manufacturer must regularly engage, for at least 10 years in manufacturing shop-applied coating systems of similar type and for similar projects to that specified

### 1.6 Delivery, Storage and Handling

- A Deliver, store and handle coating system in accordance with manufacturer's instructions. Keep coatings in original, unopened packaging until time of application. Protect coating system to prevent contamination or damage
- B Deliver, store and handle coated parts in accordance with AAMA CW-10-15 Care and Handling of Architectural Aluminum from Shop to Site

### 1.7 Coordination

- A Coordinate submittal and selection procedures for products to receive shop applied coatings. Where items are indicated to match coatings selected for other items, adjust formulations as required to achieve a match. Submit samples for verification indicating compliance with matching requirements.

### 1.8 Warranty

- A Special Finish Warranty: Standard form in which manufacturer agrees to repair finishes or replace finish that shows evidence of deterioration of factory-applied finishes within specified warranty period
  - 1 Deterioration includes, but is not limited to, the following
    - 1 Color fading in excess of deltaE 5.0 Hunter units when measured according to ASTM D 2244, Appendix XI.1
    - 2 Peeling, checking, cracking or failure to adhere to bare metal
    - 3 Chalking in excess of No. 8 rating when measured according to ASTM D4214

**Note to Specifier:**

Please consult Axalta for determination of warranty period

4                      Warranty Period: [10/15/20] years from date of substantial completion

## Part 2 – Products

### 2.1 Manufacturers

**Note to Specifier:**

Choose A+B or A+C; delete which doesn't apply

- A            Manufacturer: Axalta Coating Systems, Two Commerce Plaza, Suite 3600, 2001 Market Street, Philadelphia, PA 19103, axalta.us/powder
- B            No substitution
- C            Comparable products of another manufacturer approved by Architect prior to bid

### 2.2 Applicator

**Note to Specifier:**

List applicators approved by manufacturer of the coatings to apply the products specified and receive a warranty

- A            Shop applied application of the coating system by one of the following manufacturer's approved applicators:

**Note to Specifier:**

Select 2.3 for Aluminum substrates, 2.4 for Steel Substrate; Select 2.3 A/B/C or 2.4 A/B/C; please delete the coating systems that do not apply; Please contact Axalta to ensure the coating system selected will meet the requirements of your project

### 2.3 Shop-applied coatings for Aluminum Extrusions, Panels and Tubes

- A            **AR 300** Powder Coatings, Polyester, meeting performance requirements of **AAMA 2603**
  - A.1        Color: As selected from manufacturer's full range
  - A.2        Gloss level: @60°: Insert manufacturer's assigned gloss range
  - A.3        Film Thickness ASTM D 7091: 2.5-3.5 mil
- B            **AR 400** Powder Coatings, Super Durable Polyester, meeting performance requirements of **AAMA 2604**
  - B.1        Color: As selected from manufacturer's full range
  - B.2        Gloss level: @60°: Insert manufacturer's assigned gloss range
  - B.3        Film Thickness ASTM D 7091: 2.5-3.5 mil

- C **AR 500** Powder Coatings, Hyper Durable Fluoropolymer, meeting performance requirements of **AAMA 2605**
  - C.1 Color: As selected from manufacturer's full range
  - C.2 Gloss level: @60°: Insert manufacturer's assigned gloss range
  - C.3 Film Thickness ASTM D 7091: 2.0-3.0 mil

#### 2.4 Shop-applied coatings for Steel Sheet, Panels and Tubes

- A **AR 400** Powder Coatings, Super Durable Polyester, meeting performance requirements of **ISO 12944-6 C5i-long**
  - A.1 Color: As selected from manufacturer's full range
  - A.2 Gloss level: @60°: Insert manufacturer's assigned gloss range
  - A.3 Film Thickness ASTM D 7091: 2.5-3.5 mil
- B **AR 300** Powder Coatings, Polyester, meeting performance requirements of **ISO 12944-6 C5i-short**
  - B.1 Color: As selected from manufacturer's full range
  - B.2 Gloss level: @60°: Insert manufacturer's assigned gloss range
  - B.3 Film Thickness ASTM D 7091: 2.5-3.5 mil
- C **AR 400** Powder Coatings, Super Durable Polyester, meeting performance requirements of **ISO 12944-6 C5i-medium**
  - C.1 Color: As selected from manufacturer's full range
  - C.2 Gloss level: @60°: Insert manufacturer's assigned gloss range
  - C.3 Film Thickness ASTM D 7091: 2.5-3.5 mil

#### 2.5 Finishes

- A Pretreatment
  - A.1 Pretreat, using mechanical and chemical pretreatment methods according to coating manufacturer's requirements as well as requirements as detailed in AAMA [2603, 2604 or 2605] where applicable
- B Application
  - B.1 Apply coatings as selected according to manufacturer's requirements

## 2.6 Shop-applied coating schedule

### Note to Specifier:

A: List metal products to be coated in part description; B: list specification as listed in 2.3, delete all that do not apply; C: insert product code assigned by manufacturer, if no primer, please delete; D: List substrate as listed in 2.3

- A Part description:
- B Specification: [AAMA 2603, 2604 or 2605] [AAMA 623, 624 or 625] [ISO 12944-6 C5i (short, medium or long)]
- C Manufacturer's assigned coating product code:
  - C.1 Primer:
  - C.2 Topcoat:
- D Substrate:

## Part 3 – Execution

### 3.1 Installation

- A Refer to individual specifications sections for installation requirements and field touch-up of damaged coatings of items receiving shop-applied coatings

### 3.2 Protection

- A Remove plastic wrap from items that received shop-applied coatings at the time of installation

**END OF Section 050513**