

Aluminum Trellis Guide Specifications – Specialties #: 10705

Part 1 General

1.1 Summary

- A. This section includes products to assist in controlling the effects of the sun.
- B. Related work specified elsewhere
 - 1. _____ Concrete Section
 - 2. _____ Sheet Metal Work Section
 - 3. _____ Glazed Aluminum Curtain wall Section
- C. Work included in this section.
The extent of the extruded aluminum trellis system is shown on the contract drawings and hereby defined to include all trellis devices of the type shown and specified herein.

1.1 Industry Standard

- A. Reference: Products and executions are specified in this section by reference to the following industry and/or trade specifications or standards of the following:
- B. National Association of Architectural Metal Manufacturers (NAAMM), the Aluminum Association (AA), American Architectural Manufacturers Association (AAMA).

1.2 Qualifications

- A. Manufacturers:
 - a. Standard
 - b. For the purpose of designation type and quality for the work under this section, drawings and specifications are based on the products manufactured by:
Architectural Grilles and Sunshades, Inc. (AGS, Inc.)
Address: 22442 S. Fey Drive • Frankfort, IL 60423
Phone: (708) 479-9458 ext. 23 • Fax: (708) 479-9478
Contact: Eric Niemeyer (e-mail: eric@agsshade.com)
- B. Acceptable Manufacturers:
Subject to compliance with these specifications, products as manufactured by:

- 1.3 **Submittals:**
- A. Product data: Manufacturers technical and descriptive data.
 - B. Shop Drawings:
Submit for architect's approval prior to commencement of any work or fabrication under this section, _____ Set(s) of detail shop drawings showing all areas of work profiles and sections of all components, finishes and fastening details.
 - C. Structural Calculations: submit comprehensive analysis of design loads, dead, live, snow, wind and thermal movements. Calculations shall be stamped and signed by a professional engineer registered in the jurisdiction where the project is located.
 - D. Warranties:
The work in this section shall be guaranteed against defects in material and workmanship for a period of one (1) year from date of acceptance of the building. Contractor shall replace and repair any defects at no cost to the owner.
- 1.4 **Components:**
- A. Shipping and Handling:
Deliver materials to the job site ready for erection. Assembled units to be packaged and shipped to prevent damage during freight and storage on site.

PART 2 PRODUCTS

- 2.1 **Materials:**
- A. General: Metal shall be free from defects impairing strength, durability or appearance.
 - 1. Aluminum – ASTM B 221, alloys 6063-T5 and 6063-T6 for extrusions. ASTM B 209, alloys 5052-H32 or greater.
 - 2. Fasteners – Unless otherwise noted, fasteners shall be 300 series non-magnetic stainless steel. ASTM A-307, grade A or better.
- 2.2 **Components:**
- A. Trellis component shall be – 6063 T5 extruded aluminum AGS, Inc.
 - B. Trellis Vertical Supports shall be – 6063 T5 extruded aluminum AGS, Inc.
 - C. Trellis Horizontal Supports shall be – 6063 T5 extruded aluminum AGS, Inc.
 - D. Components to be shop assembled in large practical sections– to allow for immediate erection.
- 2.3 **Aluminum Finish:**
- A. General:
Finish on exposed aluminum shall be compliant with the performance standards set forth in AAMA Specifications 2605-98, "Superior Performing Organic Coatings on Aluminum."
 - B. Type:
Factory-applied, high performance, 70% Polyvinylidene Flouride (PVDF) coating based on Elf Atochem Inc. Kynar 500 or Ausimont USA Inc. Hylar 5000 resin, formulated by a licensed paint manufacturer, and applied by paint manufacturer's warranty-approved applicator.

- C. Pretreatment:
Applicator to pretreat the aluminum with solutions to remove organic and inorganic surface soils, remove residual oxides, followed by a chrome phosphate conversion coating - at minimum 40 mg/square foot – to ensure adhesion of paint to the aluminum.
 - D. Application:
One primer coat, one color coat, for a minimum of 1.2 mils of dry film thickness.
 - E. Color:
Architect to choose standard color.
- OR**
- A. Class I, clear anodic finish: AA-M12C22A41 (Mechanical Finish: Chemical finished: etched, medium matte; anodic coating: Architectural class I, clear coating 0.018 mm or thicker) complying with AAMA 607.1.

PART 3 – EXECUTION:

3.1 Field Dimensions:

- A. Verify conditions: Examine areas where work is to be performed and identify any conditions that could be detrimental to proper or timely completion.
- B. General Contractor Shall field confirm openings and elevations as shown on shop drawings prior to fabrication.
- C. Installation should not proceed until all conditions are satisfactory.

3.2 Erection:

- A. Qualified installer needs to comply with manufacturer's installation instructions.
- B. Verify all dimensions and the supporting structure and provide accurate field measurements, so that the trellis will be properly designed, fabricated and fitted to the structure.
- C. Anchor trellis to the building / or concrete slab per the architectural drawings.
- D. A maximum of +/- 1/8" tolerance between any column to column spacing is acceptable.
- E. Do not cut or trim any trellis components without written approval by AGS, Inc.
- F. Do not erect any damaged or deformed members. Remove or replace any damaged members in the erection process as directed by AGS, Inc.
- G. Set trellis units level, plumb, with uniform joints.
Qualified installer to erect after all adjacent painting, roofing and masonry has been completed.

3.3 Cleaning:

Clean trellis surfaces to prevent buildup of dust and debris, refer to AGS, Inc. cleaning instructions based on the finish of the material

3.4 Protection:

Protect trellis materials after installation to prevent damage by other tradespersons.

End of Section 10705