

SECTION 12484

FLOOR GRATES AND FRAMES

1 PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Entrance floor mats and frames

1.2 RELATED SECTIONS

- A. Section 03300 - Cast-In-Place Concrete: For concrete floor slab recess, and grouting frames into recess.
- B. Section 15150 - Sanitary Waste and Vent Piping: For floor drain if applicable.

1.3 REFERENCES

- A. American Society for Testing and Materials (ASTM)
 - 1. ASTM B 221-93 Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes.
- B. American Architectural Manufacturers Association (AAMA)
 - 1. AAMA 607.1 Voluntary Guide Specifications and Inspection Methods for Clear Anodic Finishes for Architectural Aluminum.

1.4 PERFORMANCE REQUIREMENTS

- A. Loading: 200 pounds per square foot uniform load.

1.5 SUBMITTALS

- A. Submit the following in accordance with Section 01300:
 - 1. Product Data: Manufacturers product specifications, installation and maintenance instructions.
 - 2. Shop Drawings: Show layout and types of mats and frames not less than half-scale sections of typical installations, details of patterns or designs, anchors, and accessories, and field measurements of slab recess to receive frames (if applicable)
 - 3. Samples for Selection Purposes: Actual sections of mat and frame material in a convenient but representative size showing full range of colors, textures, finishes and patterns available for each type of floor mat and frame specified.
 - 4. Samples for Verification Purposes: Not less than 6 inch square sections of mat material and 6 inch (152 mm) length of frame material in selected colors and finishes for each type of mat and frame specified.

1.6 QUALITY ASSURANCE

- A. Single Source Responsibility: Obtain floor grates and frames from one source and from a single manufacturer.

1.7 SEQUENCING AND SCHEDULING

- A. If product is to be recessed, coordinate with concrete work so that products are available for placing integrally with floor slabs.

1.8 WARRANTY

- A. Floor mats and frames shall be fabricated free of defects in materials and workmanship in accordance with the General Conditions, and the manufacturer shall offer a 2 year warranty against defects in materials and workmanship.

2 PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Arden Architectural Specialties, Inc., 151 Fifth Avenue NW, Suite J, St. Paul, Minnesota 55112, (800) 521-1826 or (651) 631-1607, FAX (651) 631-0251.
- B. Other manufacturers seeking approval of their products must comply with requirements of the Instructions to Bidders prior to bidding.

2.2 ENTRANCE SYSTEM TYPE

- A. Mat Description: Model M-600 MatDesign aluminum rail mat with standard carpet tread and aluminum hinges
- B. Frame Description: N/A

2.3 MATERIALS

- A. Aluminum Frames: Extruded aluminum, ASTM B 221, alloy 6063-T5, with butted corners.
 - 1. Frame Finish: Clear Anodized
- B. Aluminum Rail: ASTM B221, alloy 6063-T5
 - 1. Finish: Clear Anodized
- C. Rail Spacing: 2 inches (50.8 mm)
- D. Construction: Integral aluminum hinge with drain holes to allow debris and moisture to flow through mat.
- E. Tread Insert: 100% nylon fiber fusion bonded to backing and mechanically secured to tread rails.
 - 1. Tread Color: Brush
- F. Fasteners: Non-corrosive screws and anchors for securing frames together and to floors.

2.4 FABRICATION

- A. Shop fabricate mat and frame to greatest extent possible in sizes shown. Where not otherwise shown, provide single unit for each installation, but do not exceed manufacturers maximum size recommendation for units intended for removal and cleaning. Where joints are necessary, space symmetrically and away from normal traffic lanes. Verify sizes by field measurement before shop fabrication.

3 PART 3 EXECUTION

3.1 EXAMINATION

- A. Products must be placed on a flat and level substrate. Substrate shall meet tolerance of 1/8" (3.2mm) over 10 feet (3.28M) in accordance with ACI 302.
- B. Examine the substrates and conditions under which the work is to be performed, and notify the Contractor in writing of conditions detrimental to the proper and timely completion of the work. Do not proceed with the installation until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install products in accordance with manufacturers instructions, at locations shown and with top of products level with adjoining finished flooring where applicable.
- B. Coordinate top of product surfaces with swinging doors to provide under-door clearance.
 - 1. For installation in terrazzo flooring, contact manufacturer.

3.3 PROTECTION

- A. Upon completion of frame installations, provide temporary filler of plywood or fiberboard in grate recesses, and cover frames with plywood protective flooring. Maintain protection until construction traffic has ended and Project is near time of Substantial Completion.
- B. Install product when no further wheeled construction traffic will occur and wet type operations including painting and decorating are complete.

...END OF SECTION