

## SECTION 12484 ENTRANCE MATS AND GRATES

### Part 1 - General

- 1.01 Summary
- A. This section includes the following types of Flooring Systems:
    - 1. Entrance Matting and Framing Assemblies
  - B. Related Sections
    - 1. 03300 "Cast-In-Place Concrete" and 03600 "Grout" for cast-in-place and grouting of recessed frame
- 1.02 References
- A. American Society for Testing and Materials (ASTM)
  - B. National Fire Protection Agency (NFPA)
  - C. The Aluminum Association, Inc.
  - D. The Carpet and Rug Institute (CRI)
  - E. The National Floor Safety Institute (NFSI)
  - F. ADA Accessibility Guidelines (CFR Part 36 Appendix A)
  - G. Surface Flammability of Carpets and Rugs (CFR 16 Part 1630 and 1631)
- 1.03 Submittals
- A. Submit the following in accordance with specification section 01300 and contract requirements.
  - B. Product data for each type of entrance matting and frame to include:
    - 1. Product detail drawing including product cross-section and technical information.
    - 2. Manufacturer's product specification, installation instructions.
    - 3. Manufacturer's maintenance and cleaning instructions.
    - 4. Shop drawings showing traffic direction, dimensions, sectioning, insert types and colors, metal finishes and framing.
  - C. Product samples representing the assembled matting with the selected insert and insert color selector, and frame assembly including installation accessories.
- 1.04 Quality Assurance
- A. Flammability: Critical radiant flux 0.45 watts/m<sup>2</sup> or greater, in accordance with ASTM E648. Life Safety Code® NFPA 101, Class 1 Interior Floor Finish Testing and Classification.
  - B. Slip Resistance: Coefficient of friction 0.60 or greater, in accordance with ASTM D2047 tested in wet conditions.
  - C. Rolling Load: No deformation with 300 lb/wheel and minimum of 2500 passes. Load applied to a 5" diameter, 2" wide solid polyurethane wheel.
  - D. Single Source: Obtain entrance matting and frames from a single source to ensure dimensional compatibility.
- 1.05 Delivery, Storage and Handling
- A. Deliver materials in unopened original factory packaging, labeled to identify product and manufacturer. Store in controlled environment. To avoid damage do not stack other material on top of matting or frames.
- 1.06 Project Conditions
- A. Coordinate installation of recess frame with concrete construction. Install frames to ensure dimensions provided in shop drawings are maintained. Finished recess must be flat and level. Defer frame installation until related interior finish work is in progress.

### Part 2 - Products

- 2.01 Manufacturers
- A. Supply entrance matting and frames as manufactured by Amarco Products. Other manufacturers must comply with requirements indicated in this specification, products data, and shop drawings.
- 2.02 Materials
- A. Aluminum: ASTM B221, alloy 6105-T5 and 6063-T5 for extrusions.
  - B. Architectural Bronze: ASTM B455, alloy 385 for extrusions.
  - C. Rigid Vinyl: High impact, rigid PVC.
  - D. Flexible Vinyl: 80 Durometer, flexible PVC.
  - E. Tread Inserts: Refer to section 2.03.

### 2.03 Entrance Matting

- A. Amarco Products AT-500 7/16" Vinyl Rail Recess Matting. Manufactured from rigid vinyl tread-rail extrusions spaced at 1 7/8" centers, connected by continuous rigid vinyl hinges perforated to provide drainage. Tread rails to include continuous flexible vinyl cushion for contact with substrate and tread rail insert (selected from options listed below) for exposed walking surface. Flexible vinyl nosing available option on all edges. Tread rails are standard in mill finish aluminum. Also available in clear, medium bronze, and black anodized finishes.
- B. Tread Inserts (select from options listed below)
  - 1. Rigid-Back Nylon "SNC" Carpet: Solution dyed, 100% nylon, 33.8oz/sqyd available in manufacturer's standard colors. Carpet fibers fusion bonded to continuous two-ply rigid backing. Carpet fibers incorporate anti-stain (Teflon), anti-static, and anti-microbial additives.
  - 2. Bristle Filament "BF" Carpet: Solution dyed polypropylene fibers, 27oz/sqyd with a 50% blend of 600/12-denier multi filament and 595/D1 monofilament, available in manufacturer's standard colors. Passes 16 CFR Part 1630 (FF 1-70) and 16 CFR Part 1631 (FF 2-70) flammability. Bristle Filament is not Class 1. Carpet fibers to be fusion bonded to continuous two-ply rigid backing. Fibers are waterproof and incorporate UV inhibitors for exterior use.
  - 3. Maxi-Tuft Long Wear "MLW" Carpet: Spaced dyed, 100% polyamide nylon, tetra-lobal fibers, 30oz/sqyd available in manufacturer's standard colors. Carpet fibers fusion bonded to continuous two-ply rigid backing. Carpet fibers incorporate anti-stain, anti-static, and anti-microbial additives.
  - 4. Rigid Corrugated Vinyl "RCV": Rigid vinyl extrusion with corrugated surface for improved slip resistance, available in manufacturer's standard colors. Manufactured with UV stable pigments for improved color fastness.
  - 5. Corrugated Aluminum "CA": Alloy 6105-T5 extruded aluminum with corrugated surface for improved slip resistance, available in mill finish.
  - 6. Abrasive Aluminum "AA": Alloy 6105-T5 extruded aluminum with applied medium grit abrasive for maximum slip resistance. Aluminum is mill finish with abrasive available in manufacturer's standard colors.
- C. Flexible Vinyl Nosing
  - 1. Square Nosing: Flexible vinyl nosing model ATV-608 and ATV-610 for recess applications and special construction. Field trimmed to accommodate slight irregularities in the recess opening.
  - 2. Beveled Nosing: Flexible vinyl nosing model ATV-609 and ATV-611 for surface applications.
- D. Framing
  - 1. Level Bed: Model ATF-1002, alloy 6063-T5 extruded aluminum recessed framing or MRF-1005 alloy 385 solid bronze. Installed frame provides 3/16" exposed perimeter trim and a 7/16" deep recess. Aluminum frame standard in mill finish aluminum, also available in clear, medium bronze, and black anodized finishes (*specify anodized finish for best resistance to contact with concrete*). Bronze frame available in mill finish. Installer to use self-leveling screed to ensure smooth, flat recess.
  - 2. Angle Frame: Model ATF-125, alloy 6105-T5 extruded aluminum angle frame. Installed frame provides 1/8" exposed perimeter trim and a 7/16" deep recess. Standard in mill finish aluminum, also available in clear, medium bronze, and black anodized finishes (*specify anodized finish for best resistance to contact with concrete*). Installer to use self-leveling screed to ensure smooth, flat recess.
  - 3. Surface Frame: ATF-225, alloy 6105-T5 extruded aluminum bevel frame with medium grit abrasive insert. Surface installed to provide 2" wide, ADA compliant, beveled perimeter trim and a 7/16" deep recess. Standard in mill finish aluminum, also available in clear, medium bronze, and black anodized finishes (*specify anodized finish for best resistance to contact with concrete*). Abrasive available in manufacturer's standard colors.

## Part 3 - Execution

### 3.01 Examination

- A. Examine substrate and area where matting is to be installed. Do not proceed until unsatisfactory conditions have been corrected.

### 3.02 Installation

- A. Install products in accordance with manufacturer's installation instructions.
- B. Recessed opening must be flat, 1/8" in 10'-0", and free of debris before matting is installed.

### 3.03 Protection

- A. Protect installed frames from damage by using temporary plywood filler in recess opening. Cover exposed frames with similar materials until construction traffic is minimized. Install matting when project is near substantial completion and no further wheeled traffic or major construction operations will affect matting.

### 3.04 Cleaning

- A. Include matting and recess in a routine cleaning and maintenance program. Regular cleaning will maximize functionality, appearance, and life span of the product. Refer to manufacturer's cleaning and maintenance instructions for additional information.