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**DesignStep™ (BR)**

**SUGGESTED SPECIFICATION  
SECTION 124813  
ENTRANCE FLOOR MATS AND FRAMES**

**Part 1 General**

**1.01 Summary**

- A.** This section includes the following types of entrance flooring systems:
  - 1.** Floor Mats & Frame Assemblies
  
- B.** Related Sections: The following sections contain requirements related to this section:
  - 1.** Grouting frames into recess; refer to sections 03300 "Cast-In-Place Concrete" and section 03600 "Grout"
  - 2.** Special requirements of various flooring types; refer to section 09400 "Terrazzo"

**1.02 References**

- A.** American Society for Testing and Materials (ASTM)
  
- B.** The Aluminum Association
  
- C.** The Carpet and Rug Institute (CRI)
  
- D.** The National Floor Safety Institute (NFSI)
  
- E.** International Organization for Standardization (ISO)

**1.03 Submittals**

- A.** General: Submit the following in accordance with conditions of contract and Division 1 specification section 01300.
  
- B.** Product data for each type of floor mat and frame specified, including manufacturer's specifications and installation instructions.

- C. Shop drawings in sufficient detail showing layout of mat and frame specified including details indicating construction relative to materials, direction of traffic, spline locations, profiles, anchors and accessories.
- D. Samples for verification purposes: Submit a sample of the floor mat and frame members with showing color of exposed floor mat, frame and accessories required.
- E. Maintenance data in the form of manufacturer's printed instructions for cleaning and maintaining floor mats.

**1.04 Quality Assurance** *[Specifier note: To maximize the life cycle of the entrance flooring and their appearance, the following items are critical: i) Specifying a system will remove the need for throw down mats as soon as the building is turned over. ii) Most C/S mats are designed for traffic crossing perpendicular to the rail]*

- A. Flammability in accordance with ASTM D2859, Un-Charred area greater than 3".
- B. Slip resistance in accordance with ASTM D-2047-96, Coefficient of Friction, minimum 0.60 for accessible routes. *[Specifier note: Slip and fall accidents are a major concern in commercial entranceways. We recommend that approved systems be certified by the manufacturer as meeting a minimum coefficient of friction, when tested in wet conditions, of 0.60.]*
- C. Standard rolling load performance is 300lb/wheel with larger loading requirements as specified. (Load applied on a single wheel.) *[Specifier note: For entranceways in businesses such as retail outlets, airports, banks, and casinos, rolling load performance is a critical factor. We recommend that units with the highest practical loading capability be specified for such entrances.]*
- D. Single Source Responsibility: Obtain floor mats and frames from one source of a single manufacturer.
- E. Utilize 100% polypropylene fibers
- F. Utilize a manufacturer that is ISO 9001 & 14001 certified.

### **1.05 Delivery, Storage and Handling**

- A. Deliver materials to the project site ready for use and fabricated in as large sections and assemblies as practical, in unopened original factory packaging clearly labeled to identify manufacturer.

### **1.06 Project Conditions**

**A.** Field measurements: Check actual openings for mats by accurate field measurements before fabrication. Record actual measurements on final shop drawings. Coordinate fabrication schedule with construction progress to avoid delay of work.

**B.** For recess application coordinate frame installation with concrete construction to ensure recess and frame anchorage are accurate and that the base is level and flat. Defer frame installation until building enclosure is complete and related interior finish work is in progress.

## **Part 2 Products**

### **2.01 Manufacturers**

**A.** Drawings and specifications are based on manufacturer's literature from Construction Specialties, Inc. unless otherwise indicated. Other manufacturers must comply with the minimum levels of material and detailing indicated on the drawings and specified herein.

### **2.02 Materials**

**A.** 100% polypropylene carpet fibers

**B.** Nitrile rubber backing

### **2.03 Floor Mats**

**1. Model and Description – Designstep** entrance carpet shall be manufactured from 100% UV resistant polypropylene fibers with a face weight of 44 oz. Overall depth ½" (.47", 11.94mm). Supplied with all weather non-skid rubber backing. Choose from 6' 6" (2006.6mm) or 13' 2" (4013.2mm) wide rolls, 19 11/16" (500.00mm) x 19 11/16" (500.0mm) tiles, or custom sized vinyl edged mats. Available in (2) patterns: Powerpoint (PWPT- rolls or tiles), or Duration (DRTN- rolls or tiles). Choose from (8) standard colors by manufacturer. Roll cut and tile carpeting to be adhered to floor surface using releasable adhesive supplied by manufacturer.

**2.04 Mat Frames** (Specifier to select one below and delete others. Wall to wall applications do not require frame).

**A. VE- Vinyl Edging** - 1 1/2" (38.1mm) Tapered vinyl edging sewn on entrance carpet perimeter, with reinforced corners, for surface mounted applications, available in Black.

**B. TA- Surface Mounted Aluminum frame** shall be 1 5/8"(38.1mm) wide 6105-T5 aluminum alloy and permanently positions mat for surface mounted applications. Choose from anodized or heavy-duty powder coat finish. **Note:** Mill finish frames in contact with concrete to be primer coated. Installer shall use recommended latex screed to ensure level base

**C. LB- Level Base frame** shall be 3/4" (19.1mm) deep recessed frame in 6063-T6 aluminum alloy (optional architectural bronze) with 1/4" (6.4mm) wide exposed surface. Latex leveling screed by installer to ensure level base. Choose from anodized or heavy-duty powder coat finish. **Note:** Mill finish frames in contact with concrete to be primer coated. Installer shall use recommended latex screed to ensure level base

**D. PS - Pipe-Stem Frame** as supplied in 6063-T5-aluminum alloy creates a receiver for surrounding commercial carpet. Frame color shall be supplied in standard mill or one of 9 optional colors as offered by manufacturer. (Custom colors are available.) Choose from anodized or heavy-duty powder coat finish. **Note:** Mill finish frames in contact with concrete to be primer coated.

**E. TNG - Tapered Angle Frame** (*Specifier note: the tapered angle frame is for use when additional screed for level base is not necessary.*) shall be a 1/2"(12.7mm) deep recessed frame in 6063-T5 aluminum alloy. Frame color shall be supplied in standard mill or one of 9 optional colors as offered by manufacturer. (Custom colors are available.) Choose from anodized or heavy-duty powder coat finish. **Note:** Mill finish frames in contact with concrete

**F. L- Logo Option** - Each entrance mat specifically detailed shall include a die cut logo or trademark as follows:

1. Identify type signature or logo required (i.e., letterhead).
2. Specify number of colors within logo, (Logo colors to be selected from color pallet offered by manufacturer.)

### **Part 3 Execution**

#### **3.01 Examination**

**A.** Verification of conditions: Examine areas and conditions under which work is to be performed and identify conditions detrimental to proper or timely completion.

1. Do not proceed until unsatisfactory conditions have been corrected.

#### **3.02 Preparation**

**A.** Manufacturer shall offer assistance and guidance to provide a template of irregular shaped mat assemblies to ensure a proper installation.

**B.** Floor preparation, temperature and proper glue methods as listed in installation instructions by Construction Specialties.

### **3.03 Installation**

- A.** Install the work of this section in strict accordance with the manufacturer's recommendations.
- B.** Set mat at height recommended by manufacturer for most effective cleaning action.
- C.** Coordinate top of mat surfaces with bottom of doors that swing across to provide ample clearance between door and mat

### **3.04 Cleaning**

- B.** It is important to the life cycle of the entrance mat that a maintenance schedule be developed which includes regular vacuuming and extraction that correctly matches the amount of traffic the mat incurs.

### **3.05 Protection**

- A.** After completing required frame installation and concrete work, provide temporary filler of plywood or fiberboard in recesses, and cover frames with plywood protective flooring. Maintain protection until construction traffic has ended and project is near time of substantial completion.
- B.** Defer installation of floor mats until time of substantial completion of project.