

## **SECTION 12 48 13**

### **ENTRANCE FLOOR MATS SPECIFICATIONS**

#### **PART 1 — GENERAL**

##### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General Conditions, Supplementary Conditions and Division-1 General Requirements, apply to the work of this section.

##### **1.02 WORK INCLUDED**

- A. Furnish and install complete Balco, Inc. Floor Grid systems.
1. FMR Series floor mat, and frame
  2. FMS Series floor mat [and frame]
  3. FM2S Series floor mat [and frame]
  4. FM2R Series floor mat and frame
  5. BFMR Series, floor mat and frame
  6. BFMR Series, floor mat and frame

##### **1.03 RELATED WORK**

- A. Related work which is specified elsewhere.
1. Concrete work: Section 03 00 00.
  2. Unit Masonry: Section 04 20 00.

##### **1.04 REFERENCES**

- A. Publications listed herein are part of this specification to the extent referenced. The criteria established in the specifications shall take precedence over the standards referenced herein. (An example of a reference standard is given below.)
1. American Society for Testing and Materials (ASTM):
    - a. ASTM B221 – Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes and Tubes.

##### **1.05 SYSTEM DESCRIPTION**

- A. Roll-Up Floor Mats shall consist of a series of [aluminum] [bronze] tread rails spaced 2" (50.8 mm) o.c. and running counter to the traffic flow.
1. Roll-Up Floor Mats shall be [recessed mounted] [surface mounted].
    - a. Roll-Up Mats shall be provided with [integral ball and socket hinges] [flexible PVC vinyl hinges].
    - b. Aluminum Roll-Up Mats shall be provided with [carpet] [vinyl] [abrasive] [serrated aluminum] inserts.
- C. Floor mats shall allow debris to fall to sub-floor.

### **1.06 QUALITY ASSURANCE**

- A. Manufacturer: Obtain floor mat assemblies through one source from a single manufacturer.
  - 1. Manufacturer shall be ISO 9001 Certified.
    - a. The Manufacturer shall have documented management and control of the processes that influence the quality of its products.
    - b. The Manufacturer shall have documented management and control of the processes that influence the quality of its customer service.
  - 2. Manufacturer shall have a minimum of ten (10) years of experience in the fabrication of floor mat assemblies.
- B. Installer: Firm with not less than three (3) years of successful experience in the installation of systems similar to those required by this project and acceptable to the manufacturer of the system.

### **1.07 SUBMITTALS**

- A. Submit manufacturer's specifications and technical data, including Material Safety Data Sheets, installation instructions, as required, and catalog cuts and templates where required to explain construction and to provide for incorporation into the project.
- B. Submit certificates, copies of independent test reports or research reports showing compliance with specified performance requirements.
- C. Submit shop drawings showing layout and types of mats and frames; full-scale sections of typical installations; anchors and accessories. Shop drawings submittal shall be coordinated with concrete work shop drawings showing oversized recess for deferred installation of frame.
- D. Submit one (1) 12" x 12" sample of the specified system.

### **1.08 DELIVERY, STORAGE AND HANDLING**

- A. Deliver floor mat system to jobsite in new, clean, unopened crates of sufficient size and strength to protect materials during transit.
- B. Store components in original containers in a clean, dry location.

### **1.09 WARRANTY**

- A. Submit manufacturer's warranty that materials furnished will perform as specified for a period of not less than two (2) years for floor grids and for floor mats when installed in accordance with manufacturer's recommendations.

## **PART 2 — PRODUCTS**

### **2.01 ACCEPTABLE MANUFACTURERS**

- A. Furnish and install as noted in specifications and as indicated on drawings, Floor Mat system (type no.) as manufactured by: Balco, Inc., P.O. Box 17249, 2626 S. Sheridan, Wichita, KS 67217; phone: 800-767-0082 or (316) 945-9328; fax: (316) 945-0789.

- B. Substitutions: Submit proposed substitutions in writing to Architect no less than 10 days before bids are due. Submit samples and product data to demonstrate acceptability of proposed substitute. Acceptance will be by Addendum.

## **2.02 MATERIALS**

- A. Floor Mat systems: [Manufacturer's type number] [proprietary product name].
1. Tread rails: [Aluminum, ASTM B221, alloy 6063-T5] [Bronze, ASTM B445, alloy 385]
  2. Recessed frames: [Aluminum, ASTM B221, alloy 6063-T5] [Bronze, ASTM B445, alloy 385].
  3. Pipe frames and Surface frames: Aluminum, ASTM B221, alloy 6063-T5.
  4. Leading edge frames and fillers: Flexible P.V.C.
  5. Serrated aluminum inserts: Aluminum, ASTM B221, alloy 6063-T5
- B. Carpet shall be [standard, Carpet Strip with Monofilament tufts, 3700 Denier with 0.010" Black monofilament (91 total ends per inch), Solution dyed nylon yarn, 0.350 inch (8.9 mm) Total thickness. Anti-static treatment, anti-stain treatment, anti-microbial treatment, 33 oz./sq. yd. min.; 1.000" +/- 0.030" Outside Pile to Outside Pile] ] [heavy-duty Carpet Strip with Extruded Polypropylene Backing, 1.12" Overall Width; Solution Dyed Polypropylene yarns; ; 50/50 blend of 600/12 denier multifilament and 595/D1 denier monofilament; 6975 Total Denier; Total Thickness: 0.350" +/- .015"; Backing: .055" +.015" -.010"; 13 Picks per Inch; 28 oz./sq. yd. min. weight; Flanges: 0.140" +/-0.020"]
- C. [Continuous vinyl cushions] [Vinyl treads (inserts)]: Flexible P.V.C.
- D. Abrasive: Two (2) part Epoxy combined with aluminum oxide grit.
- E. Fasteners, accessories and other materials indicated as provided by the manufacturer on the manufacturer's details and in the manufacturer's installation instructions and required for complete installation to manufacturer's instructions.

## **2.03 FABRICATION**

- A. Fabricate floor mat assemblies as detailed.
1. Fabricate floor mat custom cut sections as required.
  2. Fabricate a series of mat tread rails [\_\_\_\_\_] wide, spaced at 2 inches o.c. and connected by [vinyl hinges] [integral aluminum hinges].
  3. Tread surfaces shall be [serrated] [continuous crosshatched vinyl] [abrasive] [carpet].
  4. Fabricate abrasive treads of [one (1) solid] [two (2) parallel solid] line(s) of abrasive.
  5. Provide necessary and related parts, devices, anchors and other items required for proper installation.
- B. Provide components in single size where possible; minimize site splicing.
1. Maximum single mat size shall be 100 sq. ft. (10' 0" x 10' 0"). Larger sizes shall be fabricated in modular sections.
  2. Provide minimum number of pieces possible for frames that exceed maximum length.

Provide frames with hairline joints, equally spaced, complete with corner pin, splice plates and installation anchors.

3. Frame shall be shop fabricated as an assembled unit for installation in the field.

C. Shop assemble components and package with anchors and fittings.

#### **2.04 FINISHES**

A. Aluminum:

1. Tread rails, Frames, [serrated aluminum inserts]: Mill finish, standard. Optional finish [Clear Anodized] [Gold Anodized] [Medium Bronze Anodized].

2. Embedded Frames: Shop coating of clear acrylic.

B. Bronze:

1. Tread rails and Frames: Mill finish, standard. Satin finish in clear acrylic on exposed areas.

2. Embedded Frames: Shop coating of clear acrylic.

C. Carpet: Specify color selected from standard colors available.

D. P.V.C. Vinyl:

1. Leading edge frames and fillers shall be [Black (standard)] [Gray (optional)] [Brown (optional)].

2. Continuous Hinges shall be black.

3. Treads shall be [specify color selected from standard colors available].

E. Abrasive: Specify color selected from standard abrasive colors.

### **PART 3 — EXECUTION**

#### **3.01 EXAMINATION**

A. Contractor shall verify that field measurements [and recessed dimensions] are as shown on shop drawings prior to releasing materials for fabrication by the manufacturer.

B. Installer shall examine conditions under which work is to be performed and shall notify the contractor in writing of unsatisfactory conditions. Installer shall not proceed until unsatisfactory conditions have been corrected in a manner acceptable to the installer.

#### **3.02 INSTALLATION**

A. Install floor mat system in accordance with the governing regulations, the industry standards applicable to the work and the manufacturer's written installation instructions.

B. Work shall be aligned plumb, level, and, where required, flush with adjacent surfaces.

C. Carpet and Vinyl shall be positively locked into tread rails.

D. Anchors shall be spaced at 24 inches o.c.

#### **3.03 ADJUSTING AND PROTECTION**

A. Inspect system components for proper fit. Adjust, repair or replace components not conforming to requirements. Repair or replacement of an individual unit shall be as approved by the Architect.

- B. Advise the contractor of procedures required to protect the finished work from damage during the remainder of the construction period.
- C. Finished units shall be without damage. Units damaged during shipping or construction shall be repaired by the contractor at the expense of the party damaging the material, in accordance with the contract requirements.
- D. Protect installation from damage by work of other Sections. After installation of frame, install temporary filler of plywood in recesses and cover frames with plywood protective flooring. Maintain protection until construction traffic has ended and project is near time of Substantial Completion.
- E. Install grids and mats near time of Substantial Completion.

**3.04 GENERAL RESPONSIBILITY**

- A. Any variation from this specification resulting in additional cost to any other contractor or subcontractor on this project shall be the sole financial responsibility of the contractor for the work of this section.

End of Section