SECTION 12 48 13
ENTRANCE FLOOR MATS AND FRAMES

1 – GENERAL

1.01 SUMMARY

A. Section includes: Entrance floor mats and frames, including fibered modular tile entrance systems

B. Related requirements:

1. Drawings and General Provisions of the Contract (including General and Supplementary Conditions and Division 1 References Section)
2. Section 03: Concrete (subfloors)
3. Section 06: Wood (subfloors)
4. Section 07: Thermal and moisture protection

1.02 REFERENCE STANDARDS

A. ASTM International,

1. C 1028 Standard Test Method for Determining the Static Coefficient of Friction of Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer Pull-Meter Method

B. European Norms (EN)

1. EN 1815 Resilient and textile floor coverings. Assessment of static electrical propensity

C. International Standards Organization (ISO)

1. ISO 140-8 Measurement of sound insulation in buildings and of building elements - Part 8: Laboratory measurements of the reduction of transmitted impact noise by floor coverings on a heavyweight standard floor
2. ISO 105 B02 Colour fastness to artificial light: Xenon arc fading lamp test
3. ISO 105 E01 Colour fastness to water
4. ISO 105 x12 Colour fastness to rubbing

D. Other referenced documents

2. Department of Commerce (DOC) FF 1-70: Pill Test
3. British Standard BS 1006: Color fastness to rubbing
4. LEED-NC v. 3

1.03 ADMINISTRATIVE REQUIREMENTS

A. Coordination: Install entrance matting after finishing operations, including painting and ceiling operations, have been completed.
B. Preinstallation Meetings: Meet to confirm project requirements, substrate conditions, manufacturer’s installation instructions and warranty requirements in compliance with Division 1 requirements.

1.04 ACTION SUBMITTALS

A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures.


C. Shop Drawings: Submit shop drawings showing layout, profiles, and product components.

D. Samples: Submit selection and verification samples showing the required finishes, colors, designs, and textures for flooring, as well as samples of adhesives and applicable accessories such as nosing, frames, etc.

1.05 INFORMATION SUBMITTALS

A. Test and Evaluation Reports

1. Product test reports: As required by Conditions of the Contract and Division 1 Regulatory Requirements Section, submit test certificates from an independent test laboratory showing compliance with specified performance characteristics and physical properties.

2. Compatibility and adhesion test reports: Submit test reports confirming adhesive’s effectiveness with the product(s) specified.


C. Sustainable Design Submittals: For projects requiring LEED submittal based on LEED-NC version 3

1. Submit documentation substantiating that Diagonal Tile contains a minimum of 52.05% post-consumer recycled content and therefore contributes to Materials & Resources Credit 4.

2. For Diagonal Tile indoor installations: submit documentation substantiating that Mats Inc. Release-Bond adhesive is GreenLabelPlus certified and therefore contributes to Indoor Environmental Quality Credit 4.1.

3. Submit documentation substantiating that the project has permanently installed Diagonal Tile that is at least ten feet in length and therefore contributes to Indoor Environmental Quality Credit 5.

1.06 CLOSEOUT SUBMITTALS


B. Sustainable Design Closeout Documentation: Submit documentation to substantiate implementation of each relevant category of LEED credits.

1.07 QUALITY ASSURANCE

A. Installer: Installer shall be highly experienced in performing work of this section, having previous done fiber modular tile installation work similar to that required for this project.

B. Testing Agency: Agency(ies) shall be independent and qualified to perform the specified product tests.
1.08 DELIVERY, STORAGE, AND HANDLING
   
   A. General: Comply with Division 1 Product Requirements Section

   B. Delivery and Acceptance Requirements: Comply with the product supplier’s ordering and lead time requirements to avoid construction delays, and to allow material to acclimatize as required in the specified product’s installation instructions. Accept delivery of materials only if they are in unopened, undamaged packaging that bears the name and brand of the manufacturer/product supplier, project identification, and shipping and handling instructions.

   C. Storage and Handling Requirements: Store material -- including any adhesive and accessories -- in the original packaging (as delivered) in areas that are enclosed and weather tight with the permanent HVAC system set at a temperature of between 65°F and 80°F for a minimum of 48 hours prior to commencement of installation. In addition, comply with storage and handling requirements listed on product packaging, and described in the latest edition of the product’s installation instructions (available from www.matsinc.com).

1.09 AMBIENT SITE CONDITIONS

The permanent HVAC system shall be operational and set at a temperature of between 65°F and 80°F for a minimum of 48 hours prior to commencement of installation, during the time of installation, and for 48 hours after installation has been completed. Thereafter, minimum temperature shall be 55°F.

2 – PRODUCTS

2.01 MANUFACTURERS

   A. Supplier: Mats Inc., 37 Shuman Avenue, Stoughton, MA 02072; telephone: 1.800.MATS.INC (1.800.628.7462); fax: 1.781.344.1537; email: info@matsinc.com; website: www.matsinc.com.

   B. Substitutions: no substitutions permitted.

   [Specifier note: edit this paragraph to suit project requirements. If substitutions are permitted, edit text. Add text to refer to Division 1 Project Requirements (Product Substitutions Procedures) Section.]

   C. Product: Diagonal Tile
      Construction: 100% solution-dyed polypropylene fiber with bitumen backing
      Tile size: 19 11/16” x 19 11/16” square
      Case pack: 20 tiles per case (54 square feet)
      Thickness: 3/8”
      Weight: 131 ounces/square yard
      Colors: [Charcoal] [Black Walnut] [Lichen] [Gray] [Bronze] [Spruce] [Blue] [Cranberry] [Beige] [Espresso]

   D. Performance: Physical properties of the entrance matting shall conform to the following minimums:

      Diagonal Tile
      Safety
      Surface flammability ASTM D2859: Pass (equal to CPSC FF 1-70 and DOC FF 1-70)
      Smoke density ASTM E662: Pass (flaming and non-flaming)
      Performance
      Slip resistance ASTM C1028: 0.63 wet; 0.65 dry
      Sound insulation ISO 140-8: > 24 dB
Static electrical propensity EN 1815: < 2 kV
Color fastness to light ISO 105 B02: 6
Color fastness to water ISO 105 E01: 5
Color fastness to rubbing ISO 105 X12: dry: 4; wet: 4
Color fastness to shampoo BS 1006: 5
LEED
MR Credit 4 52.05% post-consumer recycled
IEQ Credit 4.1 Release Bond VOC: 0 g/L
IEQ Credit 5 Diagonal Tile is designed for semi-permanent installation.

2.02 ACCESSORY PRODUCTS
B. Other:
   1. Aluminum framing: specify as recommended by Mats Inc.
   2. Ramp-Flex PVC transition: specify as recommended by Mats Inc.

3 – EXECUTION
3.01 EXAMINATION
A. Overall: Follow guidelines laid out in Division 01, Section 01 71 00 – Examination and Preparation as well as Section 01 43 00 – Quality Assurance.
B. Verification of Conditions: Subfloors shall be clean and dry. Inspect all substrates and subfloors for proper tolerances, and report any discrepancies to the general contractor in writing.
C. Preinstallation Measurements: Verify actual measurement by field measuring before any onsite cutting, if applicable. To avoid construction delays, coordinate field measurements based upon construction progress.
D. Evaluation and Assessment: See the state requirements for the project location.

3.02 SURFACE PREPARATION
A. Follow guidelines laid out in Division 01, Section 01 71 00 – Examination and Preparation.
B. Concrete subfloors: Where concrete subfloors are present, all work required to put the concrete subfloor in acceptable condition shall be the responsibility of the general contractor. See the state requirements for the project location.

3.03 INSTALLATION
A. Follow Division 01 relevant guidelines, and the latest edition of the manufacturer’s installation instructions (available from www.matsinc.com). Lay tile from center marks established with principal walls or general entrance area, discounting minor offsets, so that the tiles at opposite edges of flooring area are of equal width. Adjust as necessary to avoid use of cut widths less than 1/2 tile at room perimeters. Begin in center and install the corner of the first tile with the cross of the caulk center line. Quarter-turn tiles using directional arrows as marked on the underside of the tile. When done properly, directional arrows printed on the back of each tile should point in two directions only. Do not quarter-turn haphazardly, as the resulting pattern may not exactly match, and this is noticeable, particularly in larger areas. Coordinate installation with adjacent work to ensure proper clearances and to prevent tripping hazards.
B. Interface with Other Work: Contact Mats Inc. for suitable transition material, which will vary by application (e.g. recessed, wall-to-wall, etc.).

C. Sizes: Where not indicated otherwise, provide single unit for each mat installation, but do not exceed manufacturer's maximum size recommendation for units intended for removal and cleaning. Where possible, verify sizes by field measurement before shop fabrication.

3.04 CLEANING

A. General: Clean up job site, including sweeping or dust mopping the floor to remove all dirt or grit, and put all waste in general contractor’s dumpster. Follow overall cleaning guidelines described in Division 01.

B. Initial Maintenance: Conduct a full initial maintenance following the latest edition of the manufacturer’s maintenance instructions (available from www.matsinc.com). Instruct owner’s cleaning staff in proper maintenance procedures.

3.05 CLOSEOUT ACTIVITIES

Follow state requirements and Division 01 Section 01 76 00 – Protecting Installed Construction and Section 01 78 00 – Closeout Submittals requirements for these activities.

END OF SECTION

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