



MASTER SPECIFICATION
DIVISION 12 - FURNISHINGS
SECTION 12 48 13 ENTRANCE FLOOR MATS AND FRAMES

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Section includes: (Entrance matting systems, including vinyl foot grids)

1.2 DESCRIPTION OF WORK

- A. Related Work: The following items are not included in this Section and are specified under the designated Sections:

1. Section 03 01 30 - Cast-In-Place Concrete.
2. Section 08 11 19 - Steel Doors and Frames.
3. Section 08 14 33 - Stile and Rail Wood Doors.
4. Section 08 71 00 - Door Hardware.

- B. References (Industry Standards):

1. ASTM International (ASTM):
 - a. ASTM C1028 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. ASTM E648 Standard Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source
2. National Fire Protection Association (NFPA):
 - a. NFPA 253 Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Energy Source

1.3 SUBMITTALS

- A. General: Submit listed submittals in accordance with the Conditions of the Contract and Division 1 Submittal Procedures Section.
- B. Product Data: Submit product data, including manufacturer's specification sheet and installation instructions for specified products. Include methods of installation and substrate preparation for each type of substrate.
- C. Sustainable Design Submittals: For projects requiring LEED submittal based on LEED v3
1. Submit documentation substantiating that Design-Grid gray base contains a minimum of 27.52% pre-consumer and a minimum of 1.4% post-consumer recycled content; Design-Grid black base contains a minimum of 86% pre-consumer and a minimum of 1.4% post-consumer recycled content and therefore contributes to Materials & Resources Credit 4.
 2. Submit documentation substantiating that the project is located within 500 miles of the manufacturing facility and therefore contributes to Materials & Resources Credit 5.

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

D. Sustainable Design Submittals: For projects requiring LEED submittal based on LEED v4

1. Submit documentation substantiating that Design-Grid gray base contains a minimum of 27.52% pre-consumer and 1.4% post-consumer recycled content; Design-Grid black base contains a minimum of 86% pre-consumer and 1.4% post-consumer recycled content and therefore contributes to Materials & Resources Sourcing of Raw Materials Credit.
2. Submit documentation substantiating that the project is located within 100 miles of the manufacturing facility and therefore contributes to Materials & Resources Regional Material Credit.
3. Submit documentation substantiating that the project has permanent entryway system at least ten feet in length that is maintained on a weekly basis and therefore contributes to Indoor Environmental Quality Enhanced Indoor Air Quality Strategies Credit.

E. Shop drawings: Submit shop drawings showing layout, profiles and product components, including anchorage, accessories, finish colors, patterns and textures.

F. Samples: Submit samples for each type and color of exposed entrance mat, frames and accessories required. Provide samples of mat materials.

G. Quality Assurance Submittals: (1) Certified test reports showing compliance with specified performance characteristics and physical properties, and (2) manufacturer's Installation Instructions.

H. Closeout Submittals: (1) Cleaning & Maintenance Data (include methods for maintaining installed products and precautions against cleaning materials and methods detrimental to finishes and performance) and (2) Warranty.

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Manufacturer must be capable of providing technical field service representation.
- B. Installer: Installer should be highly experienced in performing this type of work, having previously done work similar to that required for this project.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in labeled packages. Store and handle in strict compliance with manufacturer's recommendations. Protect from damage due to weather, excessive temperatures and construction operations.
- B. Deliver materials sufficiently in advance of installation to condition materials to the required temperature for 48-hours prior to installation.

1.6 PROJECT CONDITIONS

- A. Temperature: Maintain temperature where products will be installed before, during and after installation as recommended by manufacturer.
- B. Field Measurements: Where possible, verify actual measurements by field measuring before fabrication and include measurements in shop drawings. To avoid construction delays, coordinate field measurements and fabrication schedule based upon construction progress.



1.7 WARRANTY

- A. Provide manufacturer's standard limited warranty.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURER

- A. Design-Grid by Amarco Products. 5 Powder Horn Dr. Warren, NJ 07059. Tel: 866-688-6287. Fax: 732-302-1120. Website: www.amarcomats.com; Email: info@amarcomats.com

2.2 ENTRANCE FLOOR MATS AND FRAMES

- A. Vinyl Foot Grid: Constructed from 30% post-industrial recycled polyvinyl chloride (PVC) if gray or other colors, and up to 100% post-industrial recycled PVC if black. Welded in a non-hinged, grille design with an embossed non-skid surface. (**non-embossed surfaces not acceptable**) to sizes indicated with the following characteristics:

- 1. **Design-Grid:** Extruded PVC Grid, gray color, with polyamide nylon 6.6 fiber insert in [charcoal] color. (Note to specifier: Other colors available, including custom colors. Minimums may apply.)

- B. Framing and Nosing Accessories for Vinyl Foot Grille

- 1. **Recessed Application:** Design-Grid: 3/8": use "J" frame, mill finish aluminum, or "R" frame. Optional: 3/8" "T" Section Divider.
- 2. **Surface Mounted Application:** 3/8" grid and beveled, heavy-duty attached nosing.

Note: Total thickness including the inserts is 5/8".

- C. Sports and Fitness Flooring:

1	Product Name:	Design-Grid by Amarco Products
2	Limited Wear Warranty:	4 years
3	Material:	Heat welded flexible extruded PVC with polyamide nylon inserts
4	Color:	Standard colors as offered, custom colors available with minimums
5	Surface:	Polymide nylon inserts
6	Material Size:	3' x 40' and 4' x 40'
7	Flammability (E648/NFPA 253): ≥ 0.45 watts/sq. cm for Class 1 is required	Meets Class 1
8	Smoke Density (ASTM E662/NFPA 258): < 450 is required	Meets requirements

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|----|-------------------------------|---|
| 9 | Slip Resistance (ASTM C1028): | Dry 0.97, Wet 1.01 |
| 10 | Substrate Preparation: | Per ASTM F710 and the Amarco Products Design-Grid installation instructions |
| 11 | Rolling Load | 1,200 lbs. per wheel |

PART 3 - EXECUTION

3.1 GENERAL CONTRACTOR RESPONSIBILITIES

- A. A safe, climate controlled building and subfloor that meets the requirements of *ASTM F710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring* or as detailed in the Amarco Products Design-Grid installation instructions is required. This includes a structurally sound concrete subfloor; new concrete slabs must conform to *ASTM C33/C33M — Standard Specification for Concrete Aggregate*.
- B. Chemical adhesive removers must not be used.
- C. A secure storage and installation area that is maintained permanently or temporarily at the required ambient service temperature and humidity, so the flooring contractor can acclimate the flooring materials, is required for at least 24-hours prior to and during the application of the flooring.
- D. Areas with direct prolonged exposure to sunlight must be protected with the use of Low E glass doors and windows, facades or a protective film over the glass.
- E. If required, protect the flooring from damage during construction operations using plywood or a similar product, ensuring first that the flooring surface is free of all debris. Lay panels so that the edges form a butt joint and tape the joint to prevent both movement and debris entrapment underneath them. Inspect immediately before covering and after removal for final acceptance.

3.2 FLOORING CONTRACTOR RESPONSIBILITIES

- A. Provide professional flooring installers experienced at installing commercial resilient floor coverings with sufficient professional liability insurance coverage (aka Errors and Omissions Insurance) for the project.
- B. Provide an effective installation manager to manage the project and installers and ensure that all of the required procedures are followed as detailed in the installation instructions.

END OF SECTION