CS Entrance Floor Mats and Frames

Model: PediTred® G4

Suggested Specifications | Section 12 48 13

09/26/2025

Note: After downloading this spec, the Specifier must choose the correct finish, insert and frame options and delete all other options to produce an accurate specification.

Part 1 - General

1.01 Summary

A. This section includes the following types of entrance flooring systems:
   1. Floor Mats & Frame Assemblies
   2. Floor Grids & 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/grid and frame specified including manufacturer's specifications and installation instructions.
C. Shop drawings in sufficient detail showing layout of mat/grid 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 an assembled section of floor mat/grid and frame members with selected tread insert showing each type of color for exposed floor mat/grid, frame and accessories required..
   1. PediTred® G4 9” x 7 ½” standard sample in Mill Finish with Castle Gray Carpet.

E. Maintenance data in the form of manufacturer's printed instructions for cleaning and maintaining floor mats/grids.

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1.04 Quality Assurance

[Specifier note: To maximize the life cycle of the entrance flooring and its appearance, the following items are critical: i) Most CS mats are designed for traffic crossing perpendicular to the rail. ii) When designing an entrance way it is preferable to minimize the need for turning on the mat. iii) We recommend that splices in wider units (above 12') not be positioned in the middle of a door opening wherever possible.]

A. Flammability in accordance with ASTM E648, Class 1, Critical Radiant Flux, minimum 0.45 watts/cm^2.
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 of 0.60, when tested in wet conditions.]*
C. Standard rolling load performance to be 1000 lb./wheel (load applied to a solid 5” x 2” wide polyurethane wheel, 1000 passes without damage). *[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/grids and frames from one source of a single manufacturer.
E. Utilize superior structural aluminum alloy 6105-T5 for rail components.
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/grids 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. Recessed Conditions: IMPORTANT: Coordination with Division 03 00 00 Concrete specifications is required. For proper installation, the concrete recess must be flat and smooth throughout. If the recess is formed by a concrete contractor, the pour dimensions may require leveling grout to achieve the proper depth and a smooth finish. The final recess depth will match the specified product and must be field verified. For proper frame installation, the side walls of the concrete recess must also be straight and smooth. Inconsistencies with the recess and side walls must be remediated prior to product installation.

Part 2 - Products

2.01 Manufacturer

A. Construction Specialties, 3 Werner Way, Lebanon, NJ 08833 USA 800-233-8493; email cet@c-sgroup.com
B. Drawings and specifications are based on manufacturer’s literature from Construction Specialties, Inc. unless otherwise indicated. Other manufacturers must be approved equal by Architect/Owner.

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2.02 Materials

A. *Aluminum - ASTM B 221, alloy 6105-T5, 6105-T6 for extrusions.*
B. *Flexible and prime TPE extrusions.*
C. *Tread insert options - refer to section 2.05.*

2.03 Floor Mats

A. Model and Description - G4 PediTred- Shall be extruded 6105-T5 aluminum alloy with 3/4" deep tread rails joined by an TPE hinge and cushion to compromise the overall grid length (traffic direction). The hinge shall be complete with perforations between each tread rail for drainage, unless otherwise specified. Rail finish to be standard mill or optional colors offered by manufacturer. Choose from anodized or heavy-duty powder coat finish. Unit must withstand 1000 lb. wheel loads (load applied to a 5” x 2” wide polyurethane wheel, 1000 passes without damage).

2.04 Mat Frames

(Specifier to select one below and delete others) [Specifier note: Although most entrance flooring systems can accommodate some variation in the flatness of mat well bases, it is recommended that the surface beneath the mat or grid be finished with a leveling screed to ensure optimum performance of the system.]

A. LB - Level Base Frame shall be a 1" (25.4mm) deep recessed frame in 6063-T6 aluminum
alloy with a 1/4"(6.4mm) wide exposed surface. Black TPE filler trims shall be furnished as required, when standard 1 1/2" (38.1mm) tread spacing cannot be maintained. Installer shall use recommended latex screed to ensure level base. Frame color shall be supplied in standard mill or optional colors as offered by manufacturer. Choose from anodized or heavy-duty powder coat finish.
B. 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 3/4"(19.1mm) deep recessed frame in 6063-T5 aluminum alloy. Frame color shall be supplied in standard mill or optional colors as offered by manufacturer. Choose from anodized or heavy-duty powder coat finish.

2.05 Tread Insert Options

(Specifier to select one below and delete others)

A. HD – MonoTuft HD™ Carpet shall meet CRI standard for good indoor air quality. Fibers shall include a minimum of 100, 12 mil monofilament fibers per square inch. Available in standard colors as offered by manufacturer. Each carpet fiber and monofilament shall be fusion-bonded to a rigid two-ply backing to prevent fraying and supplied in continuous splice-free lengths. Anti-static carpet fibers shall contain antimicrobial additive and be treated with Scotchgard® to reduce soiling. Carpet weight shall be 33-oz./yd².
B. EC - Exterior Carpet shall be solution dyed construction of polypropylene fibers with 50/50 blend of 600/12-denier multi filament and 595/D1

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monofilament, available in standard colors as offered by manufacturer. The texturized fibers have ultraviolet blockers and color as an integral part of the filament. Each carpet fiber and monofilament shall be fusion-bonded to a rigid two-ply backing to prevent fraying and supplied in continuous splice-free lengths. Waterproof fibers do not get soggy, rot, fade or stain. Carpet weight shall be 32-oz./yd².

C. VA - Abrasive Insert shall include a flexible abrasive grit tape, bonded to a rigid aluminum tread insert. Choose from standard mill or optional clear or black anodized finish. Complete with multiple abrasive colors as offered by manufacturer.
D. R - Rubber shall include a flexible TPE tread insert in color Black
E. RR- Recycled Rubber High slip resistant rubber (SC of 90) insert manufactured with recycled rubber and EPDM (26%-90% dependent on color chosen from available options offered by manufacturer.)..
F. L - Logo Option (DesignStep carpet inserts only) Each entrance mat specifically detailed shall include a logo or trademark.
    1. Identify type signature or logo required [i.e., letterhead].
    2. Specify number of colors within logo.

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/grid assemblies to ensure a proper installation.

3.03 Installation

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

3.04 Cleaning

A. It is important to the life cycle of the flooring systemthat a maintenance schedule be developed which includes regular vacuuming and extraction that correctly matches the amount of traffic the flooring system incurs.

3.05 Protection

A. After completing required frame installation and concrete work, provide temporary filler of plywood or fiberboard in recess, 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 flooring system until time of substantial completion of project.

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