

This guide specification was prepared utilizing 3-part format recommended by the Construction Specifications Institute (CSI), and generally incorporates recommendations from their SectionFormat™/Page Format™, and MasterFormat™, latest Editions, insofar as practicable.

Carefully review and edit the text to meet the Project requirements and coordinate this Section with the remainder of the Specifications and the Drawings.

Where bracketed text is indicated, e.g. [text], make appropriate selection and delete the remainder of text within additional brackets, highlighting, and bold face type, if any.

Consult the manufacturer for assistance in editing this guide specification for specific Project applications where necessary.

This Specification was current at the time of publication but is subject to change. Please confirm the accuracy of these specifications with the manufacturer prior to use.



SECTION 12 48 13 ENTRANCE FLOOR MATS AND FRAMES

PART ONE - GENERAL

1.01 SUMMARY

A. Section Includes

1. Entrance mat systems, including aluminum mats and frames

B. Related Sections

1. Section 036000 "Grouting" For concrete floor slab recess, and grouting frames into recess.
2. Section 07110 - Damp-proofing.

1.02 REFERENCES

A. American Society for Testing and Materials (ASTM)

1. ASTM B 221-93 Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes
2. ASTM B 455-91 Standard Specification for Copper-Zinc-Lead Alloy (Leaded-Brass) Extruded Shapes.

B. American Architectural Manufacturers Association (AAMA)

1. AAMA 606.1 Voluntary Guide Specifications and Inspection Methods for Integral Color Anodic Finishes for Architectural Aluminum
2. AAMA 607.1 Voluntary Guide Specifications and Inspection Methods for Clear Anodic Finishes for Architectural Aluminum.

1.03 SUBMITTALS

- ##### A. Product Data: Manufacturers product specifications, installation and maintenance instructions.

- B. Shop Drawings: Show layout and types of grates and frames not less than half-scale sections of typical installations, details of patterns or designs, anchors, and accessories, and field measurements of slab recess to receive frames grates (if applicable).
- C. Samples for Selection Purposes: Actual sections of grate and frame material in a convenient but representative size showing full range of colors, textures, finishes and patterns available for each type of floor grate and frame specified.
- D. Samples for Verification Purposes: Not less than 6 inch square sections of grate material and 6 inch (152 mm) length of frame material in selected colors and finishes for each type of grate and frame specified.
- E. Installation, Operations and Maintenance data.

1.04 QUALITY ASSURANCE

- A. Single Source Responsibility: Obtain floor grates and frames from one source and from a single manufacturer
- B. Wheel load rating: 350 lbs.

1.05 SUBSTITUTIONS

- A. Proposals for substitution products shall be accepted only from bidding contractors and not less than (10) working days before bid due date. Contractor guarantees that proposed substitution shall meet the performance and quality standards of this specification.

1.06 PROJECT CONDITIONS

- A. If product is to be recessed, coordinate with concrete work so that products are available for placing integrally with floor slabs.

1.07 WARRANTY

- A. Floor mats and frames shall be fabricated free of defects in materials and workmanship in accordance with the General Conditions, and the manufacturer shall offer a 2 year warranty against defects in materials and workmanship. Manufacturer's warranty applies in all cases.

PART TWO – PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. JL Industries – a Division of Activar Construction Products Group –
9702 Newton Ave. S.
Bloomington, MN 55431
(800) 554-6077
www.activarcpg.com
Sales@activarcpg.com
- B. Substitutions: Manufacturers seeking approval of their products are required to comply with the Owner's Instructions to Bidders, generally contained in the Project Manual.

2.02 MATERIALS

- A. ENTRANCE FLOOR MATS – Activ-Mat™ 800 SERIES
 - 1. Rail: Aluminum Rail: ASTM B221, Extruded 6063-T6 alloy aluminum.
 - 2. Rail Finish: Rail finish shall be supplied in mill (standard) unless otherwise indicated (anodized – clear, light bronze, medium bronze, dark bronze or black).
 - 3. Rail Spacing: Spaced 2" (50.8mm) on center.

4. Construction: 800 Series with exposed hinge rail connectors shall be extruded 6063-T6 alloy complete with perforations for drainage.
5. Rolling Load: 350 lbs.
6. Tread insert options for Activ-Mat™ 800 Series

Specifier to select one below and delete others

- i. Carpet Inserts shall meet the Carpet and Rug Institute's standard for good indoor air quality. Fibers shall include a minimum of 100, 12 mil monofilament fibers per square inch and colorfast, solution dyed nylon. Available in one of 12 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. Carpet weight shall be 33 oz./sq. yd.
- ii. Tuff Tread Inserts shall be solution-dyed polypropylene fibers with 4,500 total denier, available in one of three standard colors as offered by the Manufacturer. The textured 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. Carpet weight shall be 33 oz./sq. yd.
- iii. Vinyl Inserts shall include a flexible dual durometer vinyl insert in any one of three colors as offered by Manufacturer.
- iv. Vinyl Abrasive Inserts shall include a flexible abrasive grit tape, bonded to a rigid vinyl tread insert. Tread insert shall be supplied in black, complete with one of five abrasive colors as offered by Manufacturer.
- v. Serrated Aluminum Inserts shall be extruded 6063-T6 alloy. Serrated aluminum inserts shall be in mill finish unless otherwise indicated (anodized – clear, light bronze, medium bronze, dark bronze or black).

B. Framing for Aluminum Activ-Mat™ 800 Series

Specifier to select one below and delete others

1. EFSV8 - Beveled Vinyl Frame shall be 2" wide, with tapered lead-in edge for surface mount applications. The EFSV8 beveled vinyl frame is available in black only.
2. EFSA8 - Beveled Aluminum Frame shall be 1-3/8" wide 6063-T5 aluminum alloy and permanently secures mat for surface mount applications. Frame color shall be supplied in mill finish unless otherwise indicated (anodized – clear, light bronze, medium bronze, dark bronze or black).
3. EFRA8 – Aluminum Recessed Angle Frame shall be a 7/16" deep recessed frame in 6063-T6 aluminum alloy with 1/8" wide exposed surface. Frame color shall be mill finish unless otherwise indicated (anodized – clear, light bronze, medium bronze, dark bronze or black).
4. EFRT8 – Threshold Frame shall be supplied in 6063-T6 aluminum alloy. For surface/recess installations to provide a flush transition from entryway door

threshold to the mat surface. The frame does not require a leveling screed. The threshold frame shall be supplied in mill finish unless otherwise indicated (anodized – clear, light bronze, medium bronze, dark bronze or black).

C. ENTRANCE FLOOR MATS – Activ-Mat™ 700 SERIES

1. Rail: Aluminum Rail: ASTM B221, Extruded 6063-T6 alloy aluminum.
2. Rail Finish: Rail finish shall be supplied in mill (standard) unless otherwise indicated (anodized – clear, light bronze, medium bronze, dark bronze or black).
3. Rail Spacing: Spaced 2" (50.8mm) on center.
4. Construction: 700 Series shall be extruded 6063-T6 alloy complete with extruded soft durometer vinyl hinge for coupling rails together.
5. Fasteners: Non-corrosive screws and anchors for securing frames together and to floors.
6. Rolling Load: 350 lbs.
7. Tread insert options for Activ-Mat™ 700 Series

Specifier to select one below and delete others

- i. Carpet Inserts shall meet the Carpet and Rug Institute's standard for good indoor air quality. Fibers shall include a minimum of 100, 12 mil monofilament fibers per square inch and colorfast, solution dyed nylon. Available in one of 12 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. Carpet weight shall be 33 oz./sq. yd.
- ii. Tuff Tread Inserts shall be solution-dyed polypropylene fibers with 4,500 total denier, available in one of three standard colors as offered by the Manufacturer. The textured 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. Carpet weight shall be 33 oz./sq. yd.
- iii. Vinyl Inserts shall include a flexible dual durometer vinyl insert in any one of three colors as offered by Manufacturer.
- iv. Vinyl Abrasive Inserts shall include a flexible abrasive grit tape, bonded to a rigid vinyl tread insert. Tread insert shall be supplied in black, complete with one of five abrasive colors as offered by Manufacturer.
- v. Serrated Aluminum Inserts shall be extruded 6063-T6 alloy. Serrated aluminum inserts shall be in mill finish unless otherwise indicated (anodized – clear, light bronze, medium bronze, dark bronze or black).

D. Framing for Aluminum Activ-Mat™ 700 Series

Specifier to select one below and delete others

1. EFSV7 – Beveled Aluminum Frame shall be 2" wide, with tapered lead-in edge for surface mount applications. The EFSV7 beveled vinyl frame is available on black only.

2. EFSA7 – Beveled Aluminum Frame shall be 1-3/8” wide 6063-T5 aluminum alloy and permanently secures mat for surface mount applications. Frame color shall be supplied in mill finish unless otherwise indicated (anodized – clear, light bronze, medium bronze, dark bronze or black).
3. EFRA7 - Aluminum Recessed Angle Frame shall be a 7/16” deep recessed frame in 6063-T6 aluminum alloy with 1/8” wide exposed surface. Frame color shall be in mill finish unless otherwise indicated (anodized – clear, light bronze, medium bronze, dark bronze or black).
4. EFRT7 - Threshold Frame shall be supplied in 6063-T6 aluminum alloy. For surface/recess installations to provide a flush transition from the entryway door threshold to the mat surface. The frame does not require a leveling screed. The threshold frame shall be supplied in mill finish unless otherwise indicated (anodized – clear, light bronze, medium bronze, dark bronze or black).

2.03 LEED V3

- A. IEQ Credit 5: Activ-Mat™ Series are designed for permanent installation.
- B. MR Credit 4: With vinyl inserts, 45.8% pre-consumer recycled content; with all other treads, 38.3% pre-consumer recycled content.
- C. MR Credit 5: Material must be manufactured within 500 miles of project location.

2.04 LEED V4

- A. MR Sources of Raw materials Credit: 45.8% (vinyl inserts) and 38.3% (all other) pre-consumer.
- B. MR Regional Material Credit: Material must be manufactured within 100 miles of project location.
- C. IEQ Enhanced Indoor Air Quality Strategies Credit: Activ-Mat™ Series are LEED acceptable permanent entrance system.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Products must be placed on a flat and level substrate. Substrate shall meet tolerance of 1/8" (3.2mm) over 10 feet (3.28M) in accordance with ACI 302.
- B. Examine the substrates and conditions under which the work is to be performed and notify the Contractor in writing of conditions detrimental to the proper and timely completion of the work. Do not proceed with the installation until unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. Install products in accordance with manufacturer's instructions, at locations shown and with top of products level with adjoining finished flooring where applicable.
- B. Coordinate top of product surfaces with swinging doors to provide under-door clearance.
 1. Provide necessary shims, spacers, and anchorages for proper location and secure attachment of frames to concrete.
 2. For installation in terrazzo flooring, contact manufacturer.

3.03 PROTECTION

- A. Upon completion of frame installations, provide temporary filler of plywood or fiberboard in grate recesses, and cover frames with plywood protective flooring. Maintain protection until construction traffic has ended and Project is near time of Substantial Completion.

- B. Install product when no further wheeled construction traffic will occur and wet type operations including painting and decorating are complete.