

SECTION 08720
WEATHERSTRIPPING & SEALS
(THRESHOLDS AND RAMP THRESHOLDS)

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes: [Commercial Thresholds] [And] [Ramp Thresholds].

Specifier Note: Revise paragraph below to suit project requirements. If a reader of this section could reasonably expect to find a product or component specified in this section, but it is actually specified elsewhere, then the related section number(s) should be listed in the paragraph below. Add section numbers and titles per CSI *MasterFormat* and specifier's practice. In the absence of related sections, delete paragraph below.

B. Related Sections:

1. Division 8 Section(s): Steel Doors, Wood Doors, Sound Control Doors, Aluminum Frame Storefront Doors.
2. Division 10 Section(s): Compartments and Cubicles, Partitions.
3. Division 13 Section(s): Special Facilities, Integrated Construction, Special Structures, Special Purpose Rooms.

Specifier Note: Article below may be omitted when specifying manufacturer's proprietary products and recommended installation. Retain References Article when specifying products and installation by an industry reference standard. If retained, list standard(s) referenced in this section. Indicate issuing authority name, acronym, standard designation and title. Establish policy for indicating edition date of standard referenced. Conditions of the Contract or Division 1 References Section may establish the edition date of standards. This article does not require compliance with standard. It is a listing of all references used in this section.

1.02 REFERENCES

A. American National Standards Institute/Builders Hardware Manufacturers Association (ANSI/BHMA):

1. ANSI/BHMA A156.18: Materials and Finishes.
2. ANSI/BHMA A156.21 Thresholds.

B. Underwriters Laboratories, Inc. (UL):

1. UL 10B Fire Tests of Door Assemblies.
2. UL 10C Fire Tests of Door Assemblies.
3. UL 410 Slip Resistance for Floor Surface Materials.

C. Federal Government:

1. U.S. Architectural & Transportation Barriers Compliance Board. Americans with Disabilities Act (ADA), Accessibility Guidelines for Buildings and Facilities (ADAAG), 1992.
2. Federal Standard FED-STD-795-1988 (Revised 1989) Uniform Federal Accessibility Standards.
3. Federal Specification P-F-430C Finish, Floor, Water Emulsion (for Use On Light Colored Floors).

D. International Code Council (ICC):

1. UBC 7-2 Fire Test of Door Assemblies (Positive Pressure).
2. International Building Code (IBC) Code 2000 (Positive Pressure).
3. ICC/ANSI A117.1 Accessible and Usable Buildings and Facilities.

E. British Standards (BS):

1. BS 476 Fire Tests on Building Materials and Structures.

F. State Standards:

1. California Title 24, Part 2.

Specifier Note: Article below should be restricted to statements describing design or performance requirements and functional (not dimensional) tolerances of a complete system. Limit descriptions to composite and operational properties required to link components of a system together and to interface with other systems.

1.03 SYSTEM DESCRIPTION

A. Design Requirements: Provide threshold and seal products which have been manufactured, fabricated and installed to meet the following design criteria:

1. Performance obtained from test procedures [UL 10B] [UL 10C] [ICC/ANSI A117.1].
2. Compliant with UL 410.
3. Compliant with ADA standards.

Specifier Note: Article below includes submittal of relevant data to be furnished by Contractor before, during or after construction. Coordinate this article with Architect's and Contractor's duties and responsibilities in Conditions of the Contract and Division 1 Submittal Procedures Section.

1.04 SUBMITTALS

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

B. Product Data: Submit manufacturer's product data and installation instructions.

C. Shop Drawings: Provide drawings indicating required component locations, interface with adjacent materials, installation, anchorage, fastening and similar information.

D. Samples: Submit one each of manufacturer's standard selection samples.

E. Quality Assurance/Control Submittals: Submit the following:

1. Test Reports: Upon request, submit [Fire] [Sound] [And] [Durability] test reports from recognized testing laboratory.
2. Certificates: Submit manufacturer's certificate that products meet or exceed specified requirements.

F. Closeout Submittals: Submit the following:

1. Warranty documents specified herein.

Specifier Note: Article below should include statements of prerequisites, standards, limitations and criteria that establish an overall level of quality for products and workmanship for this section. Coordinate article below with Division 1 Quality Assurance Section.

1.05 QUALITY ASSURANCE

A. Installer Qualifications: Utilize an installer having demonstrated experience on projects of similar size and complexity.

Specifier Note: Paragraph below should list obligations for compliance with specific code requirements particular to this section and authority having jurisdiction. General statements to comply with a particular code are typically addressed in Conditions of the Contract and Division 1 Regulatory Requirements Section. Repetitive statements should be avoided.

B. Regulatory Requirements and Approvals: [Specify applicable requirements of regulatory agencies].

1. [Code agency name].
 - a. [Report or approval number].

C. Certifications: [Specify requirement for certifications].

D. Field Samples: [Specify requirement for field samples].

E. Mock-Ups: [Specify requirements for mock-up].

1. Subject to acceptance by owner, mock-up may be retained as part of finish work.

2. If mock-up is not retained, remove and properly dispose of mock-up.

Specifier Note: Retain paragraph below if preinstallation meeting is required.

F. Preinstallation Meetings: [Specify requirements for meeting].

Specifier Note: Article below should include specific protection and environmental conditions required during storage. Coordinate article below with Division 1 Product Requirements Section.

1.06 DELIVERY, STORAGE & HANDLING

A. General: Comply with Division 1 Product Requirement Section.

B. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.

C. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

Specifier Note: Coordinate article below with Conditions of the Contract and with Division 1 Closeout Submittals (Warranty) Section. Use this article to require special or extended warranty or bond covering the work of this section.

1.07 WARRANTY

A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.

B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under contract documents.

Specifier Note: Coordinate subparagraph below with manufacturer's warranty requirements.

1. Warranty Period (Standard Products): 3 years against defects in materials or workmanship, beginning with Date of Substantial Completion.
2. Warranty Period (PemKote Finish): 10 years against defects in materials or workmanship, beginning with Date of Substantial Completion.
3. Warranty Period (Recycled Rubber Ramps): 5 years against defects in materials or workmanship, beginning with Date of Substantial Completion.

1.08 MAINTENANCE

A. Extra Materials: Provide additional material for use by owner in building maintenance and repair. [Specify number of units or percentage].

PART 2 PRODUCTS

Specifier Note: Retain article below for proprietary method specification. Add product attributes, performance characteristics, material standards and descriptions as applicable. Use of such phrases as "or equal" or "or approved equal" or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal and regulatory) and assignment of responsibility for determining "or equal" products.

2.01 THRESHOLDS

Specifier Note: Paragraph below is an addition to CSI *SectionFormat* and a supplement to MANU-SPEC. Retain, edit or delete paragraph below to suit project requirements and specifier practice.

A. Manufacturer: Pemko Manufacturing Company.

1. Contact: PO Box 3780, 4226 Transport Street, Ventura, CA 93003; Telephone: (800) 283-9988, (805) 642-2600; Fax: (805) 642-4109; E-mail: pemkosales@pemko.com; website: www.pemko.com.

B. Proprietary Products/Systems: Thresholds, including the following:

1. Saddle Thresholds:
 - a. Material: Extruded tempered aluminum 6063-T6.
 - b. Finish (ANSI/BHMA 156.18): [Mill finish aluminum] [Mill finish bronze (brass)] [Bright dip gold anodized aluminum] [Dark bronze anodized aluminum] [Gold anodized aluminum] [Mill finished stainless steel].

- c. Manufacturer Model Number: [Specify manufacturer model number.].
2. Elevator Thresholds:
 - a. Material: Extruded tempered aluminum 6063-T6.
 - b. Finish (ANSI/BHMA 156.18): [Mill finish aluminum] [Mill finish bronze (brass)] [Bright dip gold anodized aluminum] [Dark bronze anodized aluminum] [Gold anodized aluminum] [Mill finished stainless steel].
 - c. Manufacturer Model Number: [Specify manufacturer model number.].
3. Half Saddles/Offset Saddles:
 - a. Material: Extruded tempered aluminum 6063-T6.
 - b. Finish (ANSI/BHMA 156.18): [Mill finish aluminum] [Mill finish bronze (brass)] [Bright dip gold anodized aluminum] [Dark bronze anodized aluminum] [Gold anodized aluminum] [Mill finished stainless steel].
 - c. Manufacturer Model Number: [Specify manufacturer model number.].
4. Thermal Barrier Saddles:
 - a. Material: Extruded tempered aluminum 6063-T6.
 - b. Finish (ANSI/BHMA 156.18): [Mill finish aluminum] [Mill finish bronze (brass)] [Dark bronze anodized aluminum] [Gold anodized aluminum].
 - c. Thermal Break: Black rigid vinyl key.
 - d. Manufacturer Model Number: [Specify manufacturer model number.].
5. Threshold Stop Strips:
 - a. Material: Extruded tempered aluminum 6063-T6.
 - b. Finish (ANSI/BHMA 156.18): [Mill finish aluminum] [Mill finish bronze (brass)] [Dark bronze anodized aluminum] [Gold anodized aluminum].
 - c. Seal: [Pemko SiliconSeal] [Pemko PemkoPrene] [Pemko ThermoSeal] [Vinyl].
 - d. Manufacturer Model Number: [Specify manufacturer model number.].
6. Floor Closer Thresholds and Cover Plate Assemblies:
 - a. Material: Extruded tempered aluminum 6063-T6.
 - b. Finish (ANSI/BHMA 156.18): [Mill finish aluminum] [Mill finish bronze (brass)] [Dark bronze anodized aluminum] [Gold anodized aluminum].
 - c. Width: [Specify width.].
 - d. Manufacturer Model Number: [Specify manufacturer model number.].
7. Floor Plate Supports and Accessories:
 - a. Material: Extruded tempered aluminum 6063-T6.
 - b. Finish (ANSI/BHMA 156.18): [Mill finish aluminum] [Mill finish bronze (brass)] [Dark bronze anodized aluminum] [Gold anodized aluminum].
 - c. Expansion Joint: Cork.
 - d. Width: [Specify width.].
 - e. Manufacturer Model Number: [Specify manufacturer model number.].
8. Floor Plates and Safety Treads:
 - a. Material: Extruded tempered aluminum 6063-T6.
 - b. Finish (ANSI/BHMA 156.18): [Mill finish aluminum] [Mill finish bronze (brass)] [Dark bronze anodized aluminum] [Gold anodized aluminum].
 - c. Width: [Specify width.].
 - d. Manufacturer Model Number: [Specify manufacturer model number.].
9. Latching Panic Exit Saddles:
 - a. Material: Extruded tempered aluminum 6063-T6.
 - b. Finish (ANSI/BHMA 156.18): [Mill finish aluminum] [Mill finish bronze (brass)] [Dark bronze anodized aluminum] [Gold anodized aluminum].

- c. Width: [Specify width.].
 - d. Seal: [Pemko ThermoSeal] [Sponge silicone] [Sponge neoprene] [Vinyl] [Pile].
 - e. Manufacturer Model Number: [Specify manufacturer model number.].
10. Latching Panic Exit Saddles - Thermal Barrier:
- a. Material: Extruded tempered aluminum 6063-T6.
 - b. Finish (ANSI/BHMA 156.18): [Mill finish aluminum] [Mill finish bronze (brass)] [Dark bronze anodized aluminum] [Gold anodized aluminum].
 - c. Width: [Specify width.].
 - d. Seal: [Pemko ThermoSeal] [Sponge silicone] [Sponge neoprene] [Vinyl] [Pile].
 - e. Thermal Break: Black rigid vinyl key.
 - f. Manufacturer Model Number: [Specify manufacturer model number.].
11. Carpet/Special Purpose Thresholds:
- a. Material: Extruded tempered aluminum 6063-T6.
 - b. Finish (ANSI/BHMA 156.18): [Mill finish aluminum] [Mill finish bronze (brass)] [Bright dip gold anodized aluminum] [Dark bronze anodized aluminum] [Gold anodized aluminum].
 - c. Width: [Specify width.].
 - d. Manufacturer Model Number: [Specify manufacturer model number.].
12. Aluminum Plates:
- a. Material: Extruded tempered aluminum 6063-T6.
 - b. Finish (ANSI/BHMA 156.18): [Mill finish aluminum] [Mill finish bronze (brass)] [Bright dip gold anodized aluminum] [Dark bronze anodized aluminum] [Gold anodized aluminum].
 - c. Width: [Specify width.].
 - d. Manufacturer Model Number: [Specify manufacturer model number.].
13. Modular Ramp Threshold Assemblies - Flush Applications:
- a. Material: Extruded tempered aluminum 6063-T6.
 - b. Finish (ANSI/BHMA 156.18): [Mill finish aluminum] [PemKote].
 - c. Width: [Specify width.].
 - d. Offset: [Specify offset.].
 - e. Manufacturer Model Number: [Specify manufacturer model number.].
14. Modular Ramp Threshold Assemblies - Offset Applications (7 Inch Top Plate):
- a. Material: Extruded tempered aluminum 6063-T6.
 - b. Finish (ANSI/BHMA 156.18): [Mill finish aluminum] [PemKote].
 - c. Width: [Specify width.].
 - d. Offset: [Specify offset.].
 - e. Manufacturer Model Number: [Specify manufacturer model number.].
15. Modular Ramp Threshold Assemblies - Offset Application (3 1/2 Inch Top Plate):
- a. Material: Extruded tempered aluminum 6063-T6.
 - b. Finish (ANSI/BHMA 156.18): [Mill finish aluminum] [PemKote].
 - c. Width: [Specify width.].
 - d. Offset: [Specify offset.].
 - e. Manufacturer Model Number: [Specify manufacturer model number.].
16. Modular Ramp Threshold Assemblies - Variable:
- a. Material: Extruded tempered aluminum 6063-T6.
 - b. Finish (ANSI/BHMA 156.18): [Mill finish aluminum] [PemKote].
 - c. Width: [Specify width.].

- d. Offset: [Specify offset].
- e. Manufacturer Model Number: [Specify manufacturer model number.].
- 17. Miter Returns for Modular Ramp Thresholds:
 - a. Material: Cast aluminum.
 - b. Finish (ANSI/BHMA 156.18): [Mill finish aluminum] [PemKote].
 - c. Type: [WING 10] [WINGEXT] [WING16].
 - d. Manufacturer Model Number: [Specify manufacturer model number.].
- 18. Pemkote Skid Resistant Surface:
 - a. Coating: Proprietary nickel aluminum composite alloy skid resistant surface.
 - b. Manufacturer Model Number: "AK".
- 19. Recycled Rubber Ramp Thresholds:
 - a. Material: Recycled rubber from tires.
 - b. Width: [Specify width.].
 - c. Offset: [Specify offset.].
 - d. Manufacturer Model Number: [Specify manufacturer model number.].
- 20. Fire Retardant Rubber Ramp:
 - a. Material: Extruded styrene butadiene rubber and fire retardant material.
 - b. Width: [Specify width.].
 - c. Offset: [Specify offset.].
 - d. Manufacturer Model Number: [Specify manufacturer model number.].
- 21. Rubber Ramp Miter Returns:
 - a. Material: Molded styrene butadiene rubber.
 - b. Manufacturer Model Number: [Specify manufacturer model number.].

Specifier Note: Edit Article below to suit project requirements. If substitutions are permitted, edit text below. Add text to refer to Division 1 Project Requirements (Product Substitutions Procedures) Section.

2.02 PRODUCT SUBSTITUTIONS

- A. Substitutions: No substitutions permitted.

PART 3 EXECUTION

Specifier Note: Article below is an addition to the CSI *SectionFormat* and a supplement to MANU-SPEC. Revise article below to suit project requirements and specifier's practice.

3.01 MANUFACTURER'S INSTRUCTIONS

- A. Comply with the instructions and recommendations of the threshold manufacturer.

Specifier Note: Specify actions to physically determine that conditions are acceptable to receive primary products of the section.

3.02 EXAMINATION

- A. Site Verification of Conditions:

- 1. Verify that site conditions are acceptable for installation of thresholds.
 - a. Examine doors and frames for compliance with requirements for door and frame manufacturer's installation tolerances, labeled fire door assembly construction, wall and floor construction and other conditions affecting performance.
- 2. Do not proceed with installation of thresholds until unacceptable conditions are corrected.

Specifier Note: Specify actions required to physically prepare the surface, area or site or to incorporate the primary products of the section.

Specifier Note: Coordinate article below with manufacturer's recommended installation requirements.

3.03 INSTALLATION

- A. Mounting Location: Comply with drawings and approved shop drawings.
- B. Adjust and reinforce attachment substrates as necessary for proper installation and operation.
- C. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.
- D. Rubber Ramps: Install using "Liquid Nails" per manufacturer's installation instructions.

Specifier Note: Specify the final actions required to prepare installed equipment or other completed work to properly function or perform.

3.04 ADJUSTING

- A. Perform adjustments required to ensure that thresholds function in compliance with manufacturer's performance criteria prior to acceptance by Owner.

Specifier Note: Specify the final actions required to clean installed equipment or other completed work to properly function or perform. Coordinate article below with Division 1 Execution Requirements (Cleaning) Section.

3.05 CLEANING

- A. Remove any protective films and clean components as necessary following manufacturer's recommended procedures.

Specifier Note: Specify provisions for protecting work after installation but prior to acceptance by the owner. Coordinate article below with Division 1 Execution Requirements Section.

3.06 PROTECTION

- A. Protect installed work from damage due to subsequent construction activity on the site.

END OF SECTION