

**SECTION 09 63 13
BRICK FLOORING**

SPEC WRITER NOTE: Delete text between
// _____ // not applicable to project.
Edit remaining text to suit project.

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Brick flooring set in mortar.

1.2 RELATED REQUIREMENTS

SPEC WRITER NOTE: Update and retain
references only when specified elsewhere
in this section.

- A. Color and Texture of // Grout // Mortar // Brick //: Section 09 06 00,
SCHEDULE FOR FINISHES.

1.3 APPLICABLE PUBLICATIONS

- A. Comply with references to extent specified in this section.
- B. American National Standards Institute (ANSI):
1. A108 - A118 - A136.1 (2014) - Installation of Ceramic Tile.
- C. ASTM International (ASTM):
1. C67-14 - Sampling and Testing Brick and Structural Clay Tile.
 2. C144-11 - Aggregate for Masonry Mortar.
 3. C150/C150M-15 - Portland Cement.
 4. C207-06(2011) - Hydrated Lime for Masonry Purposes.
 5. C270-14a - Mortar for Unit Masonry.
 6. C902-14 - Pedestrian and Light Traffic Paving Brick.
 7. C979/C979M-10 - Pigments for Integrally Colored Concrete.

1.4 SUBMITTALS

- A. Submittal Procedures: Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND
SAMPLES.
- B. Submittal Drawings:
1. Show brick flooring layout and patterns.
 2. Show special brick shapes.
- C. Manufacturer's Literature and Data:
1. Description of each product.
- D. Samples:

1. Brick: Full size of each type and color.
 - a. Minimum five individual samples showing full color and texture range.
2. Grout: Samples of brick with grouted joints of each color.

1.5 QUALITY ASSURANCE

SPEC WRITER NOTE: Ensure mockup location and size are shown on drawings. Otherwise, specify size and location.

- A. Mockups: Provide mockup of size indicated on drawings to confirm flooring materials and pattern and to establish workmanship quality.

1.6 DELIVERY

- A. Deliver products in manufacturer's original sealed packaging.
- B. Mark packaging, legibly. Indicate manufacturer's name or brand, type, color, production run number, and manufacture date.
- C. Before installation, return or dispose of products within distorted, damaged, or opened packaging.

1.7 STORAGE AND HANDLING

- A. Store masonry materials under waterproof covers on planking clear of ground.
- B. Protect products from damage during handling and construction operations.

1.8 FIELD CONDITIONS

- A. Environment:
 1. Work Area Ambient Temperature Range: Minimum 4 degrees C (40 degrees F) continuously, during and 48 hours after installation.

1.9 WARRANTY

SPEC WRITER NOTE: Always retain construction warranty. FAR includes Contractor's one year labor and material warranty.

- A. Construction Warranty: FAR clause 52.246-21, "Warranty of Construction."

PART 2 - PRODUCTS

2.1 SYSTEM PERFORMANCE

- A. Design brick complying with specified performance:

1. Slip Resistance: ASTM C902.

2.2 PRODUCTS - GENERAL

- A. Basis of Design: Section 09 06 00, SCHEDULE FOR FINISHES.
- B. Provide each flooring system component from one manufacturer and from one production run.

2.3 BRICK

SPEC WRITER NOTE: Class SX, Type 1 pavers are suitable for freeze-thaw exposure and are abrasion resistant for use in public spaces.

- A. Paving Brick: ASTM C902; Class SX, Type I.

SPEC WRITER NOTE: Application PS is intended for general use. For more exacting tolerances, specify Application PX pavers which have tighter dimensional tolerances and allow consistently narrow joints between pavers.

1. Manufacturing Tolerances: // Application PS // Application PX //.

2.4 MORTAR AND GROUT

- A. Cement: ASTM C150/C150M, Portland Type 1.
- B. Hydrated Lime: ASTM C207 Type S.
- C. Aggregate: ASTM C144.
- D. Pigments: ASTM C979/C979M, inorganic, mineral type for coloring grout.
- E. Mortar: ASTM C270, Type S, cement-lime proportion specification mix.
 - 1. Admixtures: Not acceptable.

SPEC WRITER NOTE: Use sand-Portland cement grout for field mixed grout. Proportions vary depending on joint width.

- F. Sand-Portland Cement Grout: ANSI A108 - A118 - A136.1; // with pigments to produce selected color //.
- G. Standard Cement Grout: ANSI A108 - A118 - A136.1; sanded type, factory mixed // with pigments to produce selected color //.

SPEC WRITER NOTE: Use polymer modified grout for higher bond strength and for stain resistance.

- H. Polymer Modified Grout: ANSI A108 - A118 - A136.1; sanded type, factory mixed // with pigments to produce selected color //.
- I. Sealer: Water based, penetrating, no sheen, stain resistant type suitable for use with brick and grout joints.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Examine and verify substrate suitability for product installation.
 - 1. Verify floor slab depression depth accommodates brick flooring installation thickness.
- B. Protect existing construction and completed work from damage.
 - 1. Prevent damage from contact with mortar and grout.
- C. Clean substrates. Remove contaminants capable of affecting subsequently installed product's performance.
 - 1. Remove film forming curing compounds and surface contamination.

3.2 INSTALLATION - GENERAL

- A. Install products according to manufacturer's instructions and approved submittal drawings.

3.3 BRICK INSTALLATION

- A. Do not use bricks with chips, cracks, discoloration or other visible defects.
- B. Layout brick flooring according to pattern indicated on drawings.
- C. Spread and screed mortar setting bed mixture 13 mm to 25 mm (1/2 inch to 1 inch) thick and true to plane.
- D. Limit setting bed area so brick is installed before initial set.
- E. Wet brick according to ASTM C67 rate of absorption test.
- F. Apply 1 mm (1/32 inch) layer of neat cement paste over setting bed. Set and level each brick immediately. Tamp brick to completely contact setting bed.
 - 1. Maintain uniform, aligned joints // 10 mm (3/8- inch) // 13 mm (1/2 inch) // wide.
- G. Grout joints upon mortar bed initial set. Place grout in joints, strike flush and tool slightly concave.
- H. Cure grout by maintaining damp condition for seven days.

I. Installation Tolerances:

1. Floor surface true to plane within 1 in 1000 (1/8 inch in 10 feet), non-cumulative.
2. Joint width deviation maximum 25 percent of dimension indicated.

3.4 CLEANING

- A. Remove excess mortar and grout before fully set.
- B. Clean exposed brick and grout surfaces. Remove contaminants and stains.
- C. Apply sealer according to manufacturer's instructions.

3.5 PROTECTION

- A. Protect brick flooring from traffic and construction operations.
- B. Cover brick flooring with reinforced kraft paper, and plywood or hardboard.
- C. Remove protective materials immediately before acceptance.
- D. Repair damage.

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