

**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

PRODUCT DATA SHEET 0 - Section Includes:

- 1. Brick flooring set in mortar.

1.2 RELATED WORK

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

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

1.3 APPLICABLE PUBLICATIONS

- A. Comply with references to extent specified in this section.
- B. American National Standards Institute (ANSI):
 - A108 - A118 - A136.1(2014) Installation of Ceramic Tile.
- C. ASTM International (ASTM):
 - C67/C67M-19.....Sampling and Testing Brick and Structural Clay Tile.
 - C144-18.....Aggregate for Masonry Mortar.
 - C150/C150M-20.....Portland Cement.
 - C207-18.....Hydrated Lime for Masonry Purposes.
 - C270-19a1.....Mortar for Unit Masonry.
 - C902-15.....Pedestrian and Light Traffic Paving Brick.
 - C979/C979M-16.....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.
- b. 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 //.
 H. SPEC WRITER NOTE: Use polymer modified grout for higher bond strength and for stain resistance.
 I. Polymer Modified Grout: ANSI A108 - A118 - A136.1; sanded type, factory mixed // with pigments to produce selected color //.
 J. 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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