

# Clay Pavers



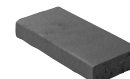
Clay pavers add warmth and hospitality to any indoor or outdoor space. The classic clay paver can be elegant, rustic or traditional. A variety of colors, textures and installation patterns make them a highly creative and adaptable paving surface.

**Versa-Tile & Mica-Tile** are designed for interior and exterior use on horizontal surfaces. Versa-Tile and Mica-Tile should be laid according to specific application (see details) and are intended for non-vehicle applications.

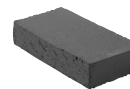
**Clay Pavers** are designed for setting dry on a sand bed where thickness is desired for traffic and physical locking of units. They may be used with either the smooth or wire-cut side as the wearing surface. The net dimensions of 4 x 8 inches permit patterns bonds where mortar joints are not used. The various sizes allow for use in both pedestrian and light vehicle applications.



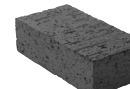
**1" Mica-Tile**  
1" x 3 1/2" x 7 1/2"  
2.5 cm x 8.9 cm x 19 cm



**1 1/4" Versa-Tile**  
1 1/4" x 3 1/2" x 7 1/2"  
3.2 cm x 8.9 cm x 19 cm



**1 1/2" Paver**  
1 1/2" x 4" x 8"  
3.8 cm x 10.2 cm x 20.3 cm



**2 1/4" Paver**  
2 1/4" x 4" x 8"  
5.7 cm x 10.2 cm x 20.3 cm



**2 3/8" Paver:**  
2 3/8" x 4" x 8"  
6 cm x 10.2 cm x 20.3 cm

## Dimensions

	Coverage	Units per Pallet	Coverage per Pallet	Weight	Weight per Pallet	Use
1" Mica-Tile	4.5 / ft <sup>2</sup> (48.44 / m <sup>2</sup> )	1,296	288 ft <sup>2</sup> (26.86 m <sup>2</sup> )	2 lb. / pc.	2,642 lbs.	*
1 1/4" Versa-Tile	4.5 / ft <sup>2</sup> (48.44 / m <sup>2</sup> )	930	206 ft <sup>2</sup> (19.27 m <sup>2</sup> )	2.7 lb. / pc.	2,561 lbs.	*
1 1/2" Paver	4.5 / ft <sup>2</sup> (48.44 / m <sup>2</sup> )	750	166.7 ft <sup>2</sup> (15.48 m <sup>2</sup> )	3.6 lb. / pc.	2,750 lbs.	**
2 1/4" Paver	4.5 / ft <sup>2</sup> (48.44 / m <sup>2</sup> )	576	128 ft <sup>2</sup> (11.89 m <sup>2</sup> )	5.5 lb. / pc.	3,218 lbs.	***
2 3/8" Paver	4.5 / ft <sup>2</sup> (48.44 / m <sup>2</sup> )	576	128 ft <sup>2</sup> (11.89 m <sup>2</sup> )	6 lb. / pc.	3,506 lbs.	***

All **Weight per Pallet** noted above include a 50 lb pallet weight.

\* *Designed for mortar-set, pedestrian applications only.*

\*\* *Designed for mortar-set or sand-set, pedestrian applications only.*

\*\*\* *Designed to be sand-set. May be used for pedestrian and light vehicular applications.*

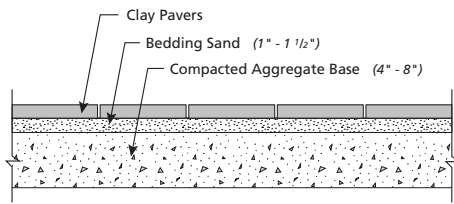
## Available Colors

For a complete list of available colors, see Mutual Materials stocking products list. For more information regarding custom colors, please contact a sales representative. Custom colors may be restricted by the size of the order or project.

## Specification

Versa-Tile are manufactured to Mutual Materials standard specifications as well as ASTM: C 902-04, Class SX, Type I  
Mica-Tile are manufactured to Mutual Materials standard specifications as well as ASTM: C 902-04, Class MX, Type II  
Clay Pavers are manufactured to Mutual Materials standard specifications as well as ASTM: C 902-04, Class MX, Type II

## Exterior Applications



### SAND-SET:

**Excavation:** Excavate to the design levels.

**Compact Subgrade:** Compact the subgrade to at least 95% of standard Proctor density as specified in ASTM D 698.

**Base Rock:** Place and compact a base of 5/8" (16 mm) minus crushed rock in layers of not more than 2" (100 mm) to a smooth uniform surface to the grade and cross section required. The minimum surface tolerance of the compacted base should be  $\pm 3/8$  in. ( $\pm 10$  mm) over a 10 ft (3 m) straightedge. A geotextile may be placed below the base rock as needed.

The thickness of the base materials is determined by traffic, soil type, climate, drainage, and moisture. Pedestrian applications should have a minimum base thickness of 4 inches (100 mm) after compaction. Residential driveways should have a minimum sub-base thickness of 6 inches (150 mm) after compaction.

**Edge Restraint:** Install the edge restraint system to prevent settling and spreading. Follow specifications and manufacturers instructions for installing edge restraints.

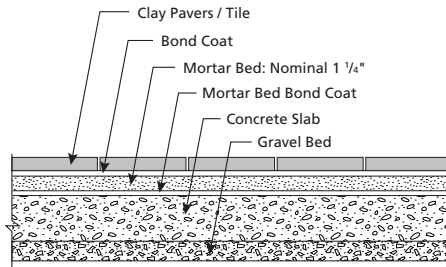
**Bedding Sand:** Bedding sand under pavers should meet ASTM C 33 or CSA A23.1 specifications. Bedding sand should be spread and screeded to a thickness of 1 to 1 1/2 inches (25-40 mm). Use screed pipes and a straight and true strike board to level the bedding sand.

**Lay Pavers:** Begin in one corner of the project and begin laying pavers in the desired pattern, moving outward in a triangular pattern. Chalk lines snapped on the bedding sand or string lines pulled across the pavers can be used to maintain straight joint lines. The joint widths between pavers should be approximately 1/16 to 1/8 inches (2-3 mm). Cut pavers should be used to fill in gaps along the edges of the project. Be sure to mix pavers from multiple pallets to achieve a consistent color blend.

**Compact:** After placing an area of pavers, compact them using a vibrating plate compactor capable of exerting 3,000-5,000 lbs. (1300-2200 kN) of centrifugal compaction force operating at 75-90 hertz (use a 3,000 lb. compactor for 1 1/2" Pavers). A rubber/plastic mat should be used on the compactor. Make at least two passes to insure that pavers have been seated in the compacted bedding sand.

**Fill Joints:** Sweep dry joint sand into the paver joints and compact the pavers again until the joints are full. Compaction should be within 3 ft. (1 m) of an unrestrained edge or laying face. At the end of each day, all pavers within 3 ft. (1 m) of the laying face should be compacted. Install any remaining edge restraints.

Source: *Interlocking Concrete Pavement Institute (ICPI): Tech Spec No. 2, 1999*



### CEMENT MORTAR, BONDED\*:

**Recommended Uses:** Exterior floors, decks or patios where membrane is not used and where positive drainage below slab is provided.

**Limitations:** Although this is the best known method of installation for a walkway, it is not reliable in areas where the mortar-bed will be subjected to freeze-thaw cycles.

#### Requirements:

- sloped slab to provide complete surface drainage
- gravel bed or other means of drainage below slab
- expansion joints are mandatory
- cover completed tile/paver work and keep damp for 3 to 7 days

#### Materials:

- portland cement: ASTM C-150 Type 1
- sand: ASTM C-144
- water: potable
- mortar: 1 part portland cement, 4 to 5 parts damp sand by volume
- bond coat: portland cement paste on a mortar bed that is still workable, or dry-set mortar or latex-portland cement mortar on a cured bed
- grout: ANSI A118.6, specify type
- mortar bed bond coat: portland cement slurry.

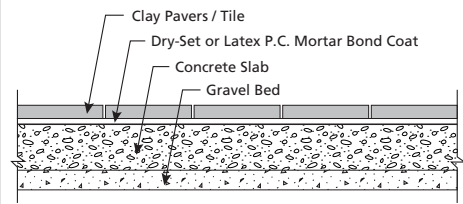
#### Preparation by Other Trades:

- provide subsurface drainage
- slope slab for complete drainage
- slab to have steel trowel and fine broom finish with no curing compounds used (when used, mechanical scarifying is necessary).
- max. variation in the slab shall not exceed 1/4" in 10'-0" from the required plane

**Expansion Joint:** Architect must specify expansion joints and show location and details on drawings.

#### Installation Specifications:

- paver/tile: ANSI A108.1A, .1B or .1C
- grout: ANSI A108.10



### DRY-SET MORTAR or LATEX-PORTLAND CEMENT MORTAR\*:

**Recommended Uses:** Exterior floors, decks or patios where membrane is not used and where positive drainage below slab is provided.

#### Requirements:

- sloped slab to provide complete surface drainage
- gravel bed or other means of drainage below slab
- expansion joints are mandatory
- bond coat 3/32" min.
- cover completed tile/paver work and keep damp for 3 to 7 days

#### Materials:

- dry-set mortar: ANSI A118.1
- latex-portland cement mortar: ANSI 118.4
- grout: ANSI A118.6, specify type

#### Preparation by Other Trades:

- provide subsurface drainage
- slope slab for complete drainage
- slab to have steel trowel and fine broom finish with no curing compounds used (when used, mechanical scarifying is necessary).
- max. variation in the slab shall not exceed 1/8" in 10'-0" from the required plane

**Expansion Joint:** Architect must specify expansion joints and show location and details on drawings.

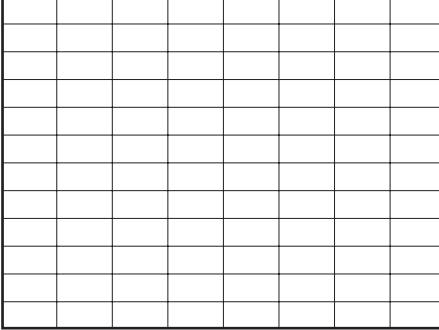
#### Installation Specifications:

- paver/tile: ANSI A108.1A, .1B or .1C
- grout: ANSI A108.10

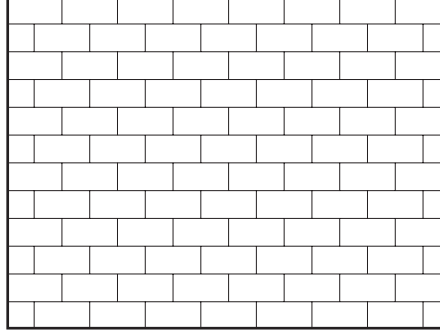
\* Source: 2003-2004 Handbook for Ceramic Tile Installation

# Installation Patterns

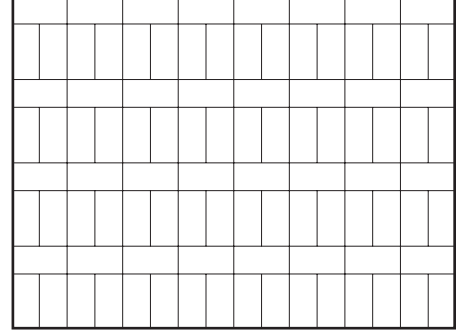
STACK BOND



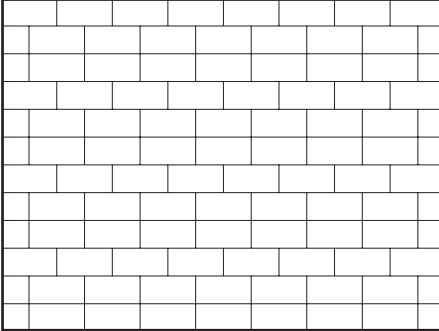
RUNNING BOND



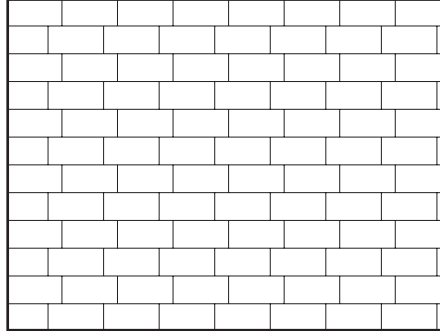
RUNNING & STACK BOND



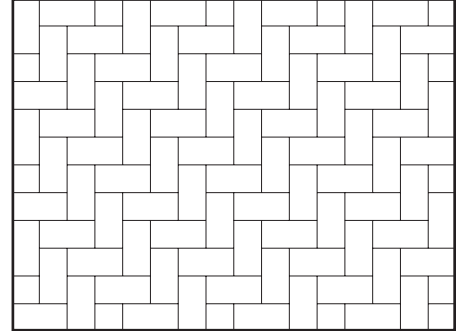
RUNNING DOUBLE BOND



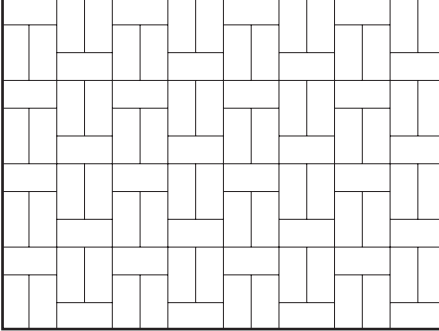
RUNNING 1/2 BOND



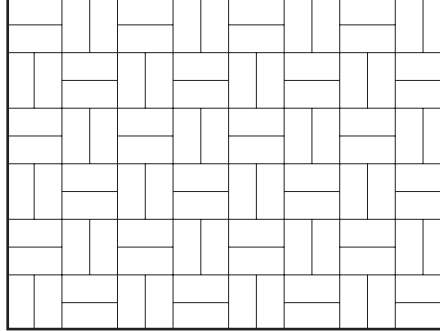
HERRINGBONE



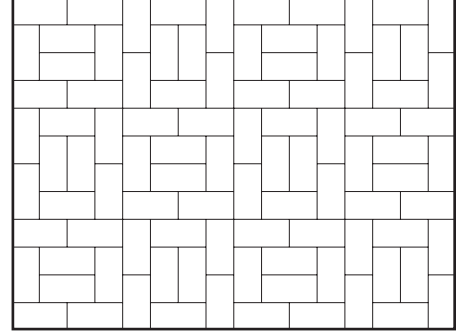
SINGLE BASKET WEAVE



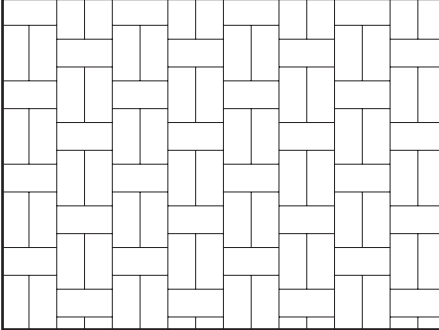
DOUBLE BASKET WEAVE



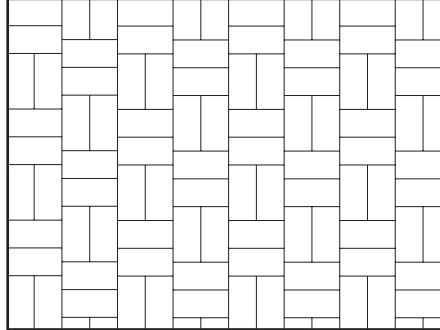
BOXED BASKET WEAVE



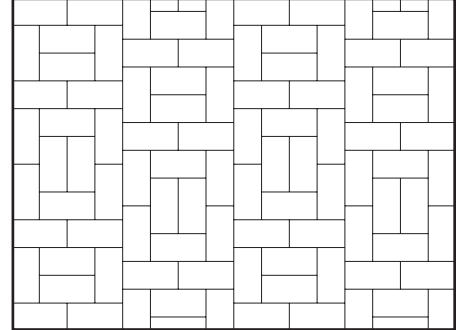
SINGLE OFFSET BASKET WEAVE



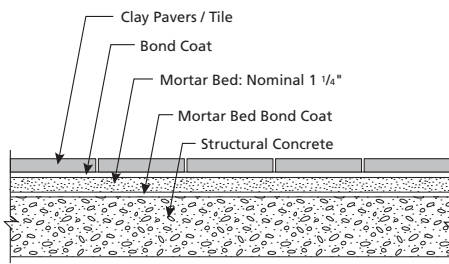
DOUBLE OFFSET BASKET WEAVE



BOXED OFFSET BASKET WEAVE



## Interior Applications



### CEMENT MORTAR, BONDED\*:

#### Recommended Uses:

- on slab-on-grade construction where no bending stresses occur
- on properly cured structural slabs of limited area

#### Requirements:

- mortar bed thickness to be uniform

#### Materials:

- portland cement: ASTM C-150 Type 1
- sand: ASTM C-144
- water: potable
- mortar: 1 part portland cement, 4 to 5 parts damp sand by volume
- bond coat: portland cement paste on a mortar bed that is still workable, or dry-set mortar or latex-portland cement mortar on a cured bed
- grout: ANSI A118.6, specify type
- mortar bed bond coat: portland cement slurry.

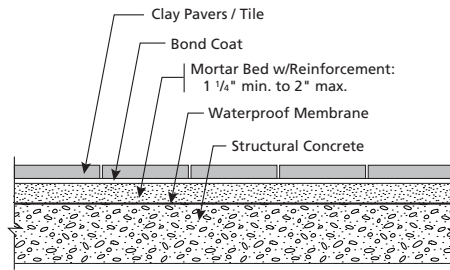
#### Preparation by Other Trades:

- slab to have steel trowel and fine broom finish with no curing compounds used (when used, mechanical scarifying is necessary).
- slope, when required, to be in subfloor
- max. variation in the slab shall not exceed 1/4" in 10'-0" from the required plane

**Expansion Joint:** Architect must specify expansion joints and show location and details on drawings.

#### Installation Specifications:

- paver/tile: ANSI A108.1A, .1B or .1C
- grout: ANSI A108.10



### CEMENT MORTAR BED\*:

**Recommended Uses:** Wherever a waterproof interior floor is required in conjunction with ceramic tile installed on a portland cement mortar bed.

#### Limitations:

- deflection not to exceed 1/360 of span
- not recommended for severe chemical exposure

#### Requirements:

- design floor areas over which paver is to be applied to have deflection not greater than 1/360 of the span. Make allowance for live load and impact as well as all dead load, including weight of the tile and setting bed
- mortar bed thickness: 1-1/4" min. to 2" max.
- mortar beds in excess of 2" thick shall be detailed by the architect

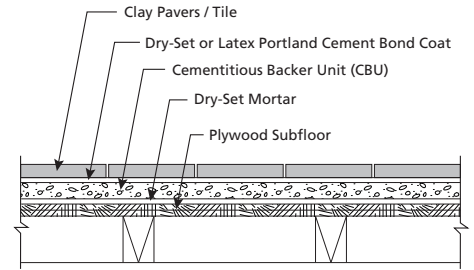
#### Materials:

- specify type of waterproofing, i.e., built-up or single-ply membrane
- mortar: 1 part portland cement, 4 to 5 parts damp sand by volume

#### Preparation by Other Trades:

- max. variation in subfloor shall not exceed 1/4" in 10'-0" from the required plane
- slope subfloor 1/4" per foot to drain

**Preparation by Tile Trade:** Waterproof membrane to be installed in compliance with all pertinent codes and manufacturer's directions.



### DRY-SET MORTAR or LATEX-PORTLAND CEMENT MORTAR\*:

#### Recommended Uses:

- over structurally sound plywood where light weight construction is a factor
- where water resistance is desired
- eliminates necessity of recessing subfloor to accommodate portland cement mortar bed

#### Limitations:

- will provide bond for presanded dry-set mortar or latex-portland cement mortar only
- waterproof membrane shall be provided where a waterproof floor is required. Follow manufacturer's installation recommendations

#### Requirements:

- design floor areas over which tile is to be applied to have a deflection not greater than 1/360 of span. Make allowance for live load and impact as well as all dead load, including weight of the tile and setting bed
- maximum spacing of floor joists is 16" o.c.
- 1/8" wide spacing between units to be filled solid with dry-set or latex-portland cement mortar
- use dry-set portland cement mortar to establish the supporting plane of the CBU
- units to be fastened through subfloor into joists with galvanized nails, screw type nails, or other corrosion-resistant fasteners
- surface of units to be clean and free of dirt, dust or oily film

#### Materials:

- cementitious backer unit: ANSI A118.9
- dry-set mortar: ANSI A118.1
- latex-portland cement mortar: ANSI 118.4
- grout: ANSI A118.6, specify type

#### Preparation by Other Trades:

- subfloor: 5/8" exterior grade plywood on joists at 16" o.c.
- max. variation in plywood surface shall not exceed 1/8" in 10'-0" from the required plane

**Expansion Joint:** Architect must specify expansion joints and show location and details on drawings.

#### Installation Specifications:

- paver/tile: ANSI A108.5
- grout: ANSI A108.10
- cementitious backer units: ANSI A108.11

\* Source: 2003-2004 Handbook for Ceramic Tile Installation

## Branch Locations

For product information and customer service, call 1-888-MUTUALØ (688-8250)

### Western Washington

Auburn Olympia (Tumwater)  
Bellevue Port Orchard  
Bellingham Redmond  
Burlington Tacoma (Parkland)  
Mukilteo

### Eastern Washington

Spokane

### Western Montana

Kalispell  
Missoula

### Western Oregon, SW Washington

Clackamas Salem  
Durham Vancouver, WA  
Hillsboro