



Installation Guide for Mortar/Grout Set Concrete Pavers and Tiles

This guide is for use by installation personnel and anyone else looking for knowledge on the installation of concrete pavers and tiles. No matter how much experience you have with installing concrete pavers and tiles, we strongly recommend that you read this guide prior to receiving and installing the products. This guide is an abbreviation of and follows [ASTM C1732 Standard Practice for Installation of Concrete Floor Tiles](#). This guide notes what Peacock Pavers feel to be some best practices of the procedures described in ASTM C1732, and Peacock Pavers, recommends that all installation personnel also read and reference ASTM C1732 in addition to using this guide. Please note that this guide does not cover every scenario that could be experienced when installing our products, so if there is any question or concern that may arise, please contact our office for assistance in that matter.

PAVER STORAGE:

Once you have received your delivery, store the pavers in a covered, dry location prior to installation and sealing. Remove shipping covers while in storage. Note: If the pavers are subject to precipitation prior to installation and sealing, streaking and efflorescence may occur. Please refer to our cleaning guide should this occur. Do not pressure wash the pavers as this may damage the finish of the paver. Additionally, do not use any type of acid-based cleaning products as they may stain the tile causing discoloration.

SUBSTRATE/SURFACE PREPARATION:

Please reference [ASTM C1732](#), section 7

Concrete:

Light broomed concrete surfaces are recommended. Smooth troweled finished concrete surfaces should be mechanically abraded to provide an adequate bond. Concrete surfaces shall be free of any materials or substances that will prevent bonding. Additionally, any cracks or spalls shall be repaired before installation. Peacock Pavers does not provide recommendations for any necessary substrate or surface repairs and recommends these be addressed by a competent person(s) along with any crack control or waterproofing concerns.

Plywood/Other Wood:

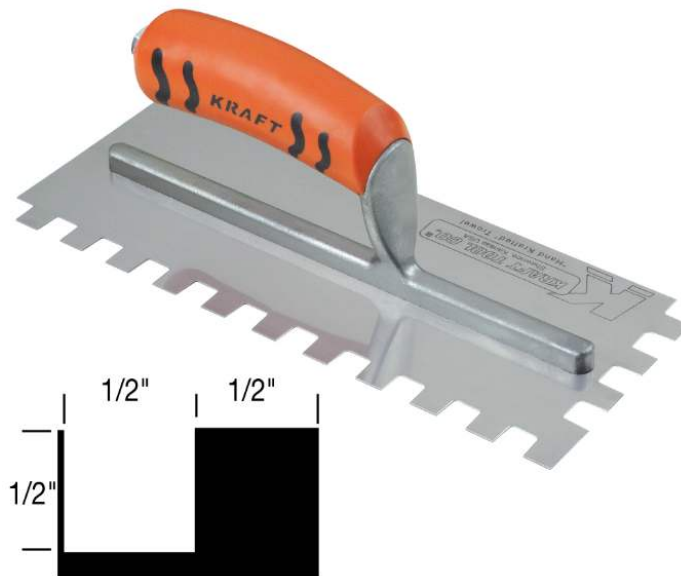
Do not bond the tiles directly to wood surfaces. Installation of a concrete backer board is recommended and noted as best practice for our products. Waterproofing membranes are recommended for areas where water contact may be an issue (kitchens, bathrooms, laundry, mud rooms). Additionally, crack suppression membranes are recommended for the 5/8" and 1" thick tiles that are being installed over wood flooring. Due to the material and thicknesses, concrete floor tiles are usually much heavier than typical porcelain and ceramic type tiles, so please note that a competent person(s) should review the design of wood floors to make sure it will handle the weight of the tiles and additional bedding materials.

INSTALLATION OF CONCRETE FLOOR TILES:

Please reference [ASTM C1732](#), section 8

Mortar Bed:

Thin-set mortar or standard bed mortar may be used. Peacock Pavers recommends either material be placed on the prepared substrate at a thickness of 1/2" using a 1/2" square notched trowel. Mortar should be mixed so that the ridges of the mortar base stand with little to no slumping. Best practice is to mix the mortar per the manufacturer's recommendations.



1/2" Square Notch Trowel

Concrete Paver/Tile:

Any tile cutting should be done with a wet saw for the best results. Tiles should be washed with clean water after cutting. Prior to installing the tile on the mortar, the bonding surface of the concrete floor tile should be moistened. Use a light mist of water from a spray bottle and blot with a towel to remove any free-standing water. After the tile bonding surface is moistened, a skim coat of mortar should be evenly applied to the pre-moistened bonding surface of the tile using the flat side of the trowel. The minimum coverage should be 95% of the bonding surface (this process is commonly referred to as “back-buttering”).



Back Buttering of Paver

Tile Installation:

Place the back-buttered tile onto the grooved mortar and move back and forth 1/8”-1/4” perpendicular to the grooves until the ridges collapse and all voids are filled. A best practice is to work in small areas, so the mortar grooves do not skim over and lose plasticity before the tiles are placed. Please note that air and substrate temperatures can affect the mortar’s set time.

GROUTING OF CONCRETE FLOOR TILE JOINTS:

Please reference [ASTM C1732](#), section 9

Grouting:

The tiles are designed to be used with a 1/2” wide grout joint, but smaller and larger joints may be used. Non-sanded grout shall be used for joints up to 1/8” wide, and sanded grout shall be used for joints over 1/8” wide. Peacock Pavers recommends that all grout joints be installed using a grout bag, and do not recommend floating the joints with a trowel. Floating the joints with a trowel can fill the pours and voids in the tile surface and create a haze look on the product. Using a grout bag protects the pours and voids on the surface and minimizes any haze on the tile. Completely fill the joint with grout and then smooth it out with a damp sponge or other grout joint finishing tool. The best practice is to clean as you go, cleaning the edge areas of the tile after the grout is smoothed out. Use clean water and a

damp cloth or sponge to clean up the excess grout. Do not allow mortar or grout to set up on the surface of the tiles. While the mortar and grout are curing, the tiles should be protected from materials and or spills that can damage or stain the tiles.



Grout Installation with Grout Bag

CLEANING CONCRETE FLOOR TILES:

Please reference [ASTM C1732](#), section 10

Cleaning:

Please refer to the mortar and grout manufacturer's recommendations for curing times for their products. Once the mortar and grout joints are cured and ready for sealing, clean the tiles using clean water and sponge before sealing. A soft bristle brush may be used if there is something that the water and sponge has trouble removing. If there is something that persists and does not clean up easily, please reference our cleaning guide. Allow the floor to dry for a minimum of 24-48 hours before sealing.

SEALING OF FLOOR TILES:

Please reference [ASTM C1732](#), section 11

Sealing:

Please refer to and follow the manufacturer's recommendations for the sealer type chosen. Peacock Pavers recommends and can supply [Enhance Architectural Products Water and Stain Repellent](#). Apply the sealer with a hand pump type garden sprayer rated for 15-25 psi. An optional method is to use a power roller with a 1" nap. The sealer should cover the flooring and should take a minimum of one minute to fully penetrate the tile. If there is no sealer present in less than one minute, add more sealer. After 5-10 minutes maximum, the remaining sealer should be blotted up using clean cloths. Do not allow any sealer pooled on the top of the tiles to dry. The sealer should be dry to touch in 1-2 hours, avoid any type of foot traffic during this time. Water repellent properties typically develop after 72 hours of application. Sealed surfaces will shed water and have a water beading

effect. Depending on the substrate and application, the sealed surface may have a slightly darker shade.

ADDITIONAL NOTES AND RECOMMENDATIONS:

Extreme Temperature Considerations:

Please reference [ASTM C1732](#), section 6, Environmental Conditions for installations where temperatures will exceed 90 degrees F or below 40 degrees F. Additionally, the installer should consult local building code requirements as these will most likely provide the best guidance for the geographic location.

Test Before You Commit:

Peacock Pavers' best practice and recommendation is to test it before you commit. When grouting the joints, the installer should run a small test area in an inconspicuous location, i.e., an out of the way corner or a location that will be covered by some sort of furniture. They can also use leftover cut sections from the installation. Certain color pigments in the grout may have a reaction with the color pigments in the concrete, so the installer should evaluate the cleaning time needed to keep the paver from showing signs of discoloration. Additionally, this is a good time to make a grout color change if needed or desired. When cleaning with something other than water, test the cleaner on an inconspicuous location or with leftover cut sections to judge the reaction and cleaning time needed. Some cleaning solutions such as acid-based cleaners and detergents, can cause permanent color change to the pavers. Follow the recommendations supplied by the cleaning solution manufacturer. Use only rags, sponges, or soft bristle brushes to clean the pavers.

Do's:

- Use clean water and either rags sponges or soft bristle brushes to clean the pavers. Refer to the cleaning guide for additional cleaning information.
- Use a grout bag to install grout joints.
- Work and clean in small areas at a time to ensure the best installation.

Do Not's:

- As previously mentioned, do not use acid-based cleaning products on the pavers.
- Apply any type of tape to the pavers. The glues in the tape can penetrate the pours of the paver and can cause discoloration and be very difficult to remove.
- Pressure wash pavers, this can damage the surface of the tile.
- Use hard bristle or metal bristle brushes as they can cause damage to the surface of the paver.

FINAL NOTE: This guide is intended to anticipate many of the questions that might present themselves during storage and installation. Whenever in doubt, do not proceed. Please contact our office at (251) 368-2072 for guidance.