



Manufacturer Recommended Installation Guidelines for SeaTile Specialty Gem Series Large Format tiles

For the perfect finish working with agglomerate surfaces, follow these guidelines.

Preparation

All substrates must be structurally sound and free from any contaminants that may inhibit bond, including oil, grease, dust, paint, sealers, floor finishes, curing compounds, etc. Weak or contaminated surfaces must be mechanically cleaned by a method such as shot blasting. Mechanically prepared surfaces must have a concrete surface profile of CSP 2-3 similar to a light broom finish (as defined by ICRI International Concrete Repair Institute, Guideline No. 03732). Concrete must support a minimum adhesion strength of 150 psi (1 MPa) when tested per ASTM D-4541 (tensile bond test). Substrate temperature shall be a minimum of 50°F (10°C) during application and air maintained between 50-90°F (10-32°C). Adequate ventilation should be provided.

Mortar Bed

The cement mortar bed has to be completely dry and clean, level, and with no visible signs of shrinking before you can start an installation. A bonded cement mortar bed must be at least 3/4" thick. An Unbonded mortar bed requires the use of reinforcing mesh per ANSI A 108.1A, B, or C.

Thinset

For direct installation on a concrete sub-floor without the use of a mortar bed, except for a self-leveling product, the floor must be level, with maximum allowable variation in the tile substrate 1/8" in 10 Ft from the required plane when measured from the high points in the surface. If maximum variation in the substrate exceeds 1/8 in 10'0" apply a minimum of 1/8" for correction and compliance per ANSI A 108.5. See "**Leveling the sub-floor** "

Concrete Substrate Moisture Content

Before installing Moisture Vapor Emission Rate (MVER) in Pounds per 1,000 Sq/Ft in 24 hours should be less than 4 Pounds. The use of a moisture barrier primer on the sub-floor is necessary if the sub-floor has too much moisture content.

For concrete with moisture vapor above 4 and below 25 pounds per 1,000 Sq/Ft, it is suggested to apply TEC LiquiDam Vapor Barrier or equivalent product. Over the cured LiquiDam apply TEC Multipurpose Primer (full strength), and install tile over cured primer.

INSTALLATION GUIDELINES

Leveling the sub-floor

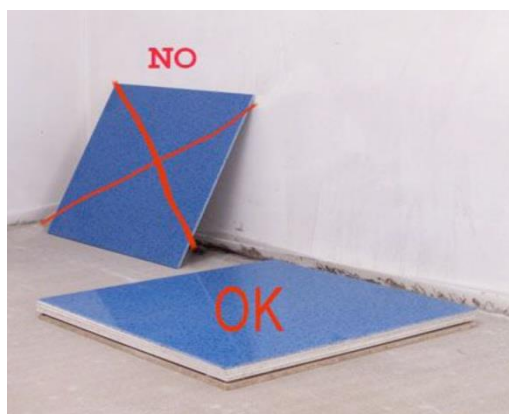
If the sub-floor is not perfectly level, the use of a self-leveling product is necessary before installation. The work of the installers will be faster and more accurate using a self-leveling product like: Mapei, Ultraplan 1, or Novoplan 2 (for improved adhesion of the underlayment you can use Ultraprime L), or from Laticrete, Laticrete 86 self-leveling, or Laticrete 86 Latilevel, with Laticrete admix and primer, or TEC Specialty Fast Set Deep Patch.

If the sub-floor requires a moisture barrier primer, then apply patching and leveling to the cured primer over the cured vapor barrier coating.

Material Handling - When you receive the tiles on the job site

If you receive tiles on the job site that appear warped this can happen during transport. Do not worry, agglomerates are flexible so it is very easy to rectify this problem.

Tiles and slabs must be stored horizontally on a flat surface.



VERY IMPORTANT

With their reduced thickness (6.6 mm) storing tile or slabs vertically may cause slight “warping” over time.

Always make sure tile or slabs are positioned on a completely flat surface.

If slabs become “warped” due to incorrect positioning, take 5/7 slabs and place them on top of one another on a flat surface. After 12 hours they will become flat and ready to install.

Open the boxes and place 20 tiles one on top of the other with the polished surface facing down place a few boxes on top of each other and let them sit like this undisturbed for 12 hours. Once this process is complete they are ready to be installed. If, when you open the box, all the tiles appear flat, just flip all the boxes upside down (face down) and store them on a flat surface until needed.

Installing agglomerates

During installation, cuts made with a wet-saw should be dried with fan or compressed air before installing to remove excess moisture.

Tile Movement Joints

IT IS MANDATORY TO PLACE TILE MOVEMENT JOINTS OVER STRUCTURAL JOINTS AND WHERE THE TILE INSTALLATION ABUTS COLUMNS, WALLS AND PENETRATIONS THROUGH THE TILEWORK. INSTALL TILE MOVEMENT JOINTS ACCORDING TO TCNA EJ171-2011 or current version. Tile Movement joints — Mandatory according to TCNA EJ171. For above-ground installations, additional movement joints are required.

INSTALLATION GUIDELINES

We recommend installing the material in rooms which have been kept at a constant temperature between 50 and 80 degrees F for at least 12 hours. The adhesive must also be kept at the temperature recommended by the manufacturer for at least a few days prior to use.

VERY IMPORTANT - Back Butter - Full Bond Mortar Coverage

All the tiles have to be back-buttered and the adhesive spread on the sub-floor using two different methods. This type of installation system is called "FULLY SUPPORTED" and assures better adhesion and support of each tile.

FLOOR (SUBSTRATE) 1/2" x 1/2" Trowel - First, Key the mortar into the substrate with the flat side of a 1/2" x 1/2" trowel. Comb with the notched side of the trowel in One direction only.

TILE (BACKBUTTER) Key the mortar into the backside of each tile with the flat side of the trowel and remove the excess, leave a skim coat the thickness of the sand in the thinset.

Mortar Coverage Bond Mortar coverage must be sufficient to prevent cracks in the tile resulting from voids in the thinset bond coat. In dry and wet areas, coverage of 100% is the goal with no voids exceeding 2 square inches and no voids within 2" of tile corners. All corners and edges of the tiles must be fully supported, and back-buttering or back coating, is recommended in all areas. Coating the back of the tile, however, does not constitute proper bond coat coverage, which is the area where the mortar makes contact with the tile and the substrate. It is required to periodically remove and check a tile to assure proper coverage per the images below.

Directional Troweling: Apply mortar using flat side of trowel to promote better substrate contact, then comb in one direction with the notched side of the trowel. Spread only an area that can be tiled while surface is still tacky (typically 10 minutes). Press tiles into setting bed, then push in a direction perpendicular to the notched trowel ridges to achieve optimum coverage. Apply mortar in a heavy enough layer so that complete contact (no voids) between mortar and tile is accomplished when tile is positioned. It may be necessary to "back-butter" large tiles to achieve complete coverage and firm support. It is required to periodically remove and check a tile to assure proper coverage per the images below. Keep a minimum of 2/3 of the joint depth between tiles for grouting.



INSTALLATION GUIDELINES

Protect New Floors

With the setting materials less than 7 days old, protect the new floor from heavy rolling loads by placing plywood on the floor in the path of heavy equipment like: scissors/man lift, pallet jack and similar. Even with plywood, it is recommended that NO extremely heavy loads like forklifts move across the new floor until after 7 days. During the first 7 day period protect the new floor from point loading.

Required bond adhesive - Rapid Set Bond Mortar

FOLLOW ARE THE SUGGESTED SETTING MATERIALS MANUFACTURERS:

- Mapei Granirapid – fast set – bi-component;
- TEC-Fast Set 3N1® Performance Mortar;
- Laticrete 254 Rapid – fast set.

According to the type of installation, we recommend that you consult with your adhesive manufacturer's specialist who can guide you to the best solution.

Customer Service: 1-800-657-7866 or 954-522-7866 e-mail: info@matrix-z.com visit our on line gallery @ www.matrix-z.com