

K A B L A N

M A G N E T I C P O R C E L A I N

INSTALLATION INSTRUCTIONS

Magnetic Porcelain Flooring

UG.MP.001 - 2020/01

I. PREPARATION

(a) Plywood & OSB

- i. Plywood or OSB sub-floor must be flat, with flush transitions between boards. Self-levelling concrete is recommended to help ensure the surface is flat. Always follow manufacturer's or engineer's instructions for cure times and proper application. If using a self-levelling concrete, or other concrete topper, continue in the "Concrete" section for preparation.
- ii. Abrupt irregularities are not permitted, and a flatness tolerance of 1/8" per 10' (peak to valley), 1/16" per 2' (peak to valley), and 1/32" per 1' (peak to valley) must be maintained during and after installation.
- iii. Remove all adhesives and contaminants from subfloor, and ensure subfloor is smooth and in "as-new" condition.
- iv. Sub-floor assembly must have high dimensional stability and rigidity. L/720 deflection criteria is recommended, however L/240 is acceptable in most cases, due to the high flexibility of our porcelain.
- v. Rubberized Steel Membrane adhesive backing is compatible with most types of plywood and OSB, without the need for primers. Some substrates may require additional surface preparation (ex. hydrophobic OSB). User is responsible for testing to ensure compatibility. If unsure, contact technical support for assistance at 1.888.848.TILE.
- vi. Remove any standing water and allow surface to dry.
- vii. Vacuum surface and remove all debris and contaminants.
- viii. Ensure sub-floor is at room temperature between 18°C to 23°C (65°F to 73°F) and has an average equilibrium moisture content (EMC) of 8-9%.

(b) Concrete

- i. Concrete surface must be flat and fully cured. Self-levelling concrete is recommended to help ensure the surface is flat. Always follow manufacturer's or engineer's instructions for cure times and proper application.
- ii. Abrupt irregularities are not permitted, and a flatness of FF50 or better must be maintained during and after installation.
- iii. Remove all adhesives and contaminants from subfloor, and ensure subfloor is smooth and in "as-new" condition.
- iv. Sub-floor assembly must have high dimensional stability and rigidity. L/720 deflection criteria is recommended, however L/240 is acceptable in most cases, due to the high flexibility of our porcelain.
- v. Rubberized Steel Membrane adhesive backing is compatible with most types of concrete, without the need for primers. Some substrates may require additional surface preparation (ex. dry-pack). User is responsible for ensuring compatibility. If unsure, contact technical support for assistance at 1.888.848.TILE.
- vi. Remove any standing water and allow surface to dry.
- vii. Vacuum surface and remove all debris and contaminants.
- viii. Ensure sub-floor is at room temperature between 18°C to 23°C (65°F to 73°F).
- ix. Concrete must have a pH of 7.0 to 9.0.

(c) Raised Floor Panels

- i. Raised floor panels must be flat and level.
- ii. Abrupt irregularities are not permitted, and a flatness tolerance of 1/8" per 10' (peak to valley), 1/16" per 2' (peak to valley), and 1/32" per 1' (peak to valley) must be maintained during and after installation.

- iii. Remove all adhesives and contaminants from subfloor, and ensure subfloor is smooth and in "as-new" condition.
- iv. Sub-floor assembly must have high dimensional stability and rigidity. L/720 deflection criteria is recommended, however L/240 is acceptable in most cases, due to the high flexibility of our porcelain.
- v. Rubberized Steel Membrane adhesive backing is compatible with most raised floor panels, without the need for primers. Some substrates may require additional surface preparation. User is responsible for testing to ensure compatibility. If unsure, contact technical support for assistance at 1.888.848.TILE.
- vi. Remove any standing water and allow surface to dry.
- vii. Vacuum surface and remove all debris and contaminants.
- viii. Ensure sub-floor and raised panels are at room temperature between 18°C to 23°C (65°F to 73°F)
- ix. If raised floor panels have full coverage with a ferromagnetic material (ex. galvanized steel, mild steel, 400 series stainless, etc), installation of Rubberized Steel Membrane is not required.

2. INSTALLATION

(a) Rubberized Steel Membrane™ (underlay)

- i. If installing on raised floor panelling, Rubberized Steel Membrane™ may not be required. See Section 1.(c) for details. All other installations require Rubberized Steel Membrane™.
- ii. Ensure Rubberized Steel Membrane™ is at room temperature between 18°C to 23°C (65°F to 73°F).
- iii. Plan the placement of the Rubberized Steel Membrane™ such that it will be perpendicular to the placement of the tiles.
- iv. Allow for expansion joints as needed; for most areas, a gap of 1cm (3/8") around the perimeter of rooms and fixed objects (such as columns) is sufficient. In some cases (ex. large rooms, large temperature gradients, unconditioned areas, etc), additional expansion joints may be necessary. Do not overlap joints.
- v. Peel the liner from Rubberized Steel Membrane as you unroll it smoothly onto the sub-floor, and avoid trapping air bubbles.
- vi. Rubberize Steel Membrane can be easily trimmed with a sharp utility knife.
- vii. To promote a strong adhesive bond and to help remove air bubbles, apply pressure with a rubber or steel roller. For ease of installation, a 35kg+ (75lb+) roller is recommended, however a small roller with hand-applied pressure may also be used.

(b) Porcelain Tile

- i. Ensure Rubberized Steel Membrane™ is clean and dry. Vacuum using a soft brush and wipe down with a damp cloth to remove all dust and contaminants. Dry thoroughly using a cloth or paper towel.
- ii. Ensure tiles are at room temperature between 18°C to 23°C (65°F to 73°F).
- iii. Rest the edge of the tile on the Rubberized Steel Membrane, and line it up in the desired position. Lower the rest of the tile down and it will instantly lock into place magnetically. Ensure joints are tight, or use spacers if grout is desired. When tiles are installed without grout, they are immediately ready for foot traffic. If grout is used, an elastic composition is recommended (such as some urethane, epoxy, or silicone grouts) to complement the flexibility of the tiles, as well as to accommodate sub-floor flex. When using grout, a minimum 2mm (1/16") joint is recommended.
- iv. Tiles may be cut using conventional methods, such as wet sawing or dry cutting (score-and-snap). If using the score-and-snap method, the magnetic backing will need to be cut with a utility knife after the tile is snapped.
- v. Allow for expansion joints as needed. For most areas, a gap of 1cm (3/8") around the perimeter of rooms and fixed objects (such as columns) is sufficient. In some cases (ex. large rooms, large temperature gradients, unconditioned areas, etc), additional expansion joints may be necessary.
- vi. In areas where contaminants or high moisture are a concern (ex. commercial kitchens, food courts, etc.), tile joints should be grouted. An elastic composition is recommended (such as some urethane, epoxy, or silicone grouts) to complement the flexibility of the tiles, as well as to accommodate sub-floor flex. When using grout, a minimum 2mm (1/16") joint is recommended.

3. **REMOVAL**

(a) *Porcelain Tile*

- i. Always use safety glasses and cut resistant gloves when removing tiles.
- ii. Using a suction lifter, pull straight up in a smooth motion to reduce the likelihood of chipping. The Kablan Specialized Lifter may be used to further reduce the likelihood of damage, however is generally not necessary.
- iii. In the rare case of a severely damaged tile, the suction lifter may not form a vacuum. Begin by removing an adjacent tile with the suction lifter. The broken tile can then be removed by pulling up from the short edge of the tile by hand.