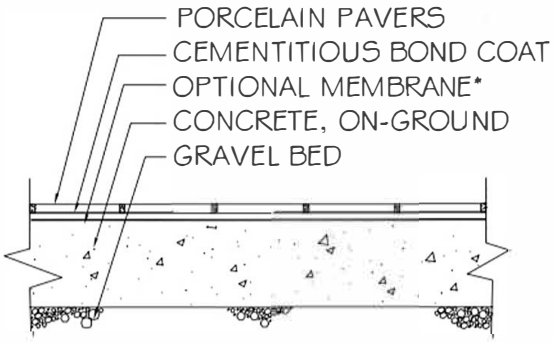
INSTALLATION OF PORCELAIN PAVERS ON CEMENT SLABS GUIDELINES ARE BASED ON TCNA STANDARDS

F102-19

- **On-Ground Concrete**
- **Porcelain Pavers**



*USE OF A MEMBRANE IS OPTIONAL. SEE MEMBRANE OPTIONS.

Recommended Uses

- For exterior slab-on-ground construction where no bending stresses occur, positive drainage below the slab is provided, for example, driveways, decks, patios or walkways.

Service Rating

- Extra heavy.

Limitations

- Where the installation will be subjected to freeze-thaw cycles, snow and ice accumulation, and/or snow melting chemicals, degradation can occur over time.

Membrane Options

- A waterproof membrane (A118.10) may be specified to prevent moisture intrusion and reduce the need for below-slab drainage. Specifier shall indicate if complete waterproofing is required, including if/how membrane connects to drain assembly, if base flashing is required, and treatment at other termination points.
- A crack isolation membrane (A118.12) may be specified to treat existing in-plane cracks (F125-partial) or for protection against future in-plane cracking (F125-full). See F125 for more information.
- Check with membrane manufacturer for suitability for applicable conditions, as not all membranes are suitable for steam, high temperature, and/or chemical exposure, exterior use, use over above-ground structural slabs, use over pourable underlayments, use with radiant heat, or use over concrete with excessive moisture vapor transmission and/or alkalinity. Membrane may also affect service rating.

Requirements

- Slab to be well cured, dimensionally stable, and free of cracks, waxy or oily films, and curing compounds.

Materials

- **Multiple options exist for membranes, mortars, grouts, and other materials and *must be clearly specified* to be included. If not specifically indicated, optional materials are not included and mortar/grout choice defaults to minimum performance specification indicated. Consider each system component and intended use to determine minimum requirements and to specify options.**
- Cementitious grout—ANSI A118.6 or better or ISO CG1 or better. When glass tile is used, specify grout designated by tile and grout manufacturers.
- Cementitious bond coat:
  - When a membrane is not used—ANSI A118.4 or better or ISO C2 or better.
  - When a crack isolation membrane is used—ANSI A118.4 or better or ISO C2S1 or better.
  - When a waterproof membrane is used—ANSI A118.4 or better or ISO C2S1 or better unless ANSI A118.1 or ISO C1 is recommended by membrane manufacturer.
- Waterproof membrane, when used—ANSI A118.10.
- Crack isolation membrane, when used—ANSI A118.12.

Materials for Green/Sustainable Design

- See "Green Building Standards and Green Product Selection Guide" and consult manufacturers and suppliers for product sustainability and contribution to green building design.

Preparation by Other Trades

- Gravel bed or other means of drainage below slab.
- 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.

Installation Specifications

- Cementitious grout—ANSI A108.10.
- Waterproof membrane—ANSI A108.13.
- Crack isolation membrane—ANSI A108.17.

Notes

- Not all bonding mortars are suitable for exterior use.
- A polymer modified cement is suggested for exterior use.
- Protection of installation may be required to prevent premature exposure of setting materials to moisture.
- If a waterproof membrane is not used, positive drainage below slab must be provided.