

LARGE FORMAT TILE ON INTERIOR FLOORS

329 LFT -2019-2021

SUITABLE SUBSTRATES

- For use on suitable substrates such as cured concrete, double layer of plywood, 12,5 mm CBU suitably installed on plywood subfloor, mortar bed suitably installed on plywood subfloor or other rigid subfloor systems (Drawings refer to 311F-A, 313F-A,B,D).
- Dry interiors only, unless provided with a suitable waterproofed structure and sloped to drain.
- Provide a suitable rigid subfloor that is designed to support the maximum loading anticipated for the area to be tiled. Floor systems, including the framing system and subfloor panels, over which the tile will be installed shall be in conformance with the Canadian National Building Code 2015 and applicable local building codes taking into consideration anticipated live and dead loads.

MATERIALS

- TILE*
- SELF-LEVELLING UNDERLAYMENT – Cement-based, quick-setting, self-levelling, self-drying underlayment for engineer-approved floors, very fluid once mixed, installation from featheredge 6 mm to at least 138 mm in a single application.
- CRACK ISOLATION MEMBRANE – ANSI A118.12 (follow membrane manufacturer's instructions for use on vertical surfaces).
- UNCOUPLING MEMBRANE – Follow manufacturer's recommendations.
- BOND COAT – Full coverage Large and Heavy Tile mortars, latex-Portland cement mortar (minimum acceptable standard ANSI A118.4 or ISO 13007 C2S1), modified epoxy emulsion mortars or 100% solids epoxy mortar (minimum acceptable standard ANSI A118.3 or ISO 13007 R1).
- GROUT – Polymer-modified sanded tile grout (minimum acceptable standard ANSI A118.7 or ISO 13007 CG2).

APPLICATION

- Measure deflections on the floor using a 10ft straight-edge prior to commencing any installation.
- Apply crack isolation membrane (ANSI A108.17) or uncoupling membrane following manufacturer's recommendations to provide complete coverage of the substrate in the area on which the large format tile is to be installed. Use recommended notch trowel for setting larger format tiles. Apply mortar into substrate with flat side of trowel. This ensures complete contact to the pores of the substrate. It is very important that complete coverage be achieved by back buttering each piece of tile with thin-set mortar immediately prior to setting the tile to ensure that no voids are present against the back of the tile.
- Follow ANSI A108.19 for important information pertaining to the installation of gauged porcelain tiles and gauged porcelain tile panels/slabs (note that this installation standard is restricted for indoor installation, a standard for an outdoor installation is under development).
- Use proper notched trowel to ensure adequate bond. With pressure, apply a coat of mortar by using the trowel's flat side to key the mortar into the substrate. Apply additional mortar, combing it in a single direction parallel to the tile's shortest dimension, with the trowel's notched side. Place the tiles firmly into the wet bond coat. Push the tiles back and forth in a direction perpendicular to trowel lines, to collapse the mortar ridges and to help achieve maximum coverage. Ensure proper contact between mortar, tile and substrate by periodically lifting a few tiles to check for acceptable coverage. Use sufficient bond coat to ensure minimum 95% contact with back of tile (it may be necessary to back-butter the tile in order to meet this requirement). Special attention should be paid to ensure complete coverage of the bond coat to the edges of the tiles. It is particularly important to have enough staff to apply the tie coat so that tiles are installed while the product is still wet and sticky. Remove excess mortar from the joint areas so that at least 2/3 of the tile depth is available for grouting. Allow bond coat to cure. Force grout into the joints with a rubber grout

LIMITATIONS

- Manufacturer's recommendations must be followed.
- Surface variation should not exceed 3 mm in 3000 mm and 1,5 mm in 600 mm.
- Provide positive drainage below interior slabs; use latex-Portland cement mortars on exterior slabs. Use of epoxy mortars and grouts is recommended for interior surfaces only or where improved chemical resistance is required.
- Use method 309F-2019-2021 or crack isolation/uncoupling membrane if recommended by the manufacturer for precast floor systems, post tensioned concrete floor systems and other floors subject to movement or deflection.

OTHER CONSIDERATIONS

- For exterior installations, use a suitable latex-Portland cement mortar or manufacturer's recommendations. Backbuttering of the tile is required to achieve 95% contact.
- Tile used in exterior applications must be frost resistant.
- Refer to Notes For The Professional and 301MJ-2019-2021.
- Waterproofing membrane if required must be specified. (ANSI A118.10) Follow manufacturer's recommendations
- For exterior use concrete slab must be sloped to provide positive surface drainage and adequate drainage below slab must be provided.
- Movement Joint (architect must specify type of joint and show location and details on drawings)
- There is a new standard for gauged porcelain tiles and gauged porcelain tile panels/slabs as per ANSI A137.3 which should be consulted for types, size and performance.
- Use of a Lippage Control device may be required.

- * Notes on Large format tiles, Gauged Porcelain and Porcelain Panels/Slabs can be found on pages 12 -13.