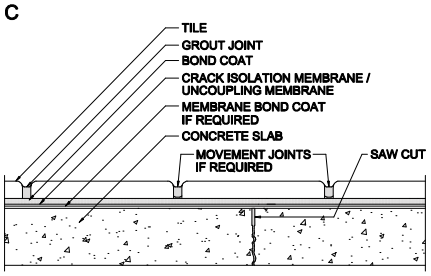
TILE BONDED TO CONCRETE SLAB - THIN-SET METHOD
311F-2019-2021

DETAIL C – CRACK CONCRETE INTERIOR/EXTERIOR – FULL COVERAGE

C



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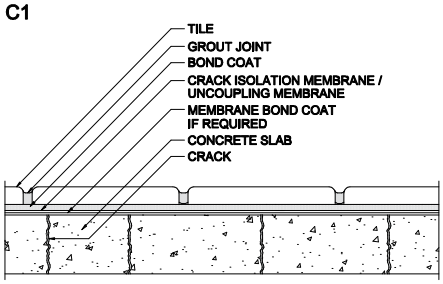

SUITABLE SUBSTRATES

- Floor systems 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
- BOND COAT – **Interior:** Dry-set mortar (minimum acceptable standard ANSI A118.1 or ISO 13007 C1), latex-Portland cement mortar (minimum acceptable standard ANSI A118.4 or ISO 13007 C2S1), modified epoxy emulsion mortars, 100% solids epoxy mortar (minimum acceptable standard ANSI A118.3 or ISO 13007 R1).
  Exterior: Single or two component liquid latex cement mortar (minimum acceptable standard ANSI A118.4 or ISO 13007 C2S1).
- GROUT – **Interior:** Portland cement, latex-Portland cement (minimum acceptable standard ANSI A118.6 or ISO 13007 CG1), or epoxy grouts (minimum acceptable standard ANSI A118.3 or ISO 13007 RG). **Exterior:** Latex-Portland.
  cement (minimum acceptable standard ANSI A118.6 or ISO 13007 CG1).
- Crack Isolation membrane conforming to ANSI A118.12.
- Consult manufacturer for product compatibility.
- Membrane Bond Coat as required by manufacturers recommendations.

APPLICATION

- Maximum variation of slab should not exceed 6 mm in 3000 mm or 2 mm in 300 mm. For large format tile where any side is greater than 380 mm, surface variation should not exceed 3 mm in 3000 mm and 1.5 mm in 600 mm. For tile with any edge longer than 380 mm use sufficient bond coat to ensure minimum 95% contact, with the corners and edges fully supported. Apply crack isolation membrane or uncoupling membrane as per manufacturer's recommendations. Apply movement joint if required on one or both sides of the tile bringing the existing crack. 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 on exterior installations and wet areas (it may be necessary to back-butter the tile in order to meet this requirement) and minimum 80% on interior dry areas. Remove excess mortar from the joint areas so that at least 2/3 of the tile depth is available for grouting. Allow bond coat and grout to cure as recommended by the manufacturer for the type of environment and exposure anticipated. Allow bond coat to cure. Force grout into the joints with a rubber grout float. Make sure all joints are well-compacted and free of voids and gaps. Remove excess grout from the tile surface and clean.

LIMITATIONS

- Manufacturers' recommendations must be followed.
- Verify with manufacturer if product is sensitive to high PH levels in concrete.
- Verify with manufacturer if product is suitable for exterior installations and follow manufacturer's recommendations for suitable bond coat materials.

OTHER CONSIDERATIONS

- Not to be used over expansion joints, cold joints or structural joints.
- Tile used in exterior installations must be frost resistant.
- Refer to Notes For The Professional and 301MJ-2019-2021.
- For exterior use, concrete slab must be sloped to provide positive surface drainage and adequate drainage below slab must be provided.
- Some manufacturers recognize the use of their products for partial coverage, over existing cracks. Follow manufacturer's recommendations/guidelines.
- Uncoupling Membrane – follow manufacturer's recommendations. Please see page 31 for more information.