

# TILE OVER INSULATION IN REFRIGERATION ROOMS

## 320R-2019-2021



Please refer to page 7.

### DETAIL A – ON MORTAR BED

#### SUITABLE SUBSTRATES

- Block-type insulation with acceptable compressive strength over masonry or concrete walls.

#### MATERIALS

- TILE
- GALVANIZED METAL LATH – 1.4 kg/m<sup>2</sup> (ASTM C847).
- BOND COAT – Single or two component liquid latex-Portland cement mortar (minimum acceptable standard ANSI A118.4 or ISO 13007 C2S1).
- GROUT – Portland cement or latex-Portland cement (minimum acceptable standard ANSI A118.6 or ISO 13007 CG1), epoxy grout (minimum acceptable standard ANSI A118.3 or ISO 13007 RG).

#### APPLICATION

- Attach backer unit or coated glass mat backer board to studs with rust resistant screws or nails. Fasteners shall be spaced 150 mm o.c. Backer unit must be table, plumb and square with coated grey side of coated glass mat backer board away from the studs. Drive fasteners flush with coated surface. Do not countersink. Surface variation in the backing not to exceed 6 mm in 3000 mm or 2 mm in 300 mm and can be applied either parallel or perpendicular to framing. 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. Apply levelling coat, if required. All joints and angles must be taped with alkali-resistant 51 mm wide fibre-mesh tape, filled with a latex-Portland cement mortar and sanded. Do not sand coated glass mat backer board. For all joints and angles embed an alkali-resistant 51 mm wide fibre-mesh tape in the same bond coat material used to set the tiles and let dry. 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.. Beat mosaic tile into position. 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 float. Make sure all joints are well-compacted and free of voids and gaps. Remove excess grout from the tile surface and clean.

#### OTHER CONSIDERATIONS

- Design of vapour retarder and reinforced concrete slab by others. Floor should be sloped 20 mm per 1000 mm. Provide drains as required. Latex additive use in place of water is recommended for Portland cement bond coat, and may be used in modification of mortar bed.
- Drains should be designed to permit drainage of water at the tile surface and the surface of the waterproofing membrane. A drainage layer may be incorporated over the waterproofing membrane as recommended by the manufacturer. For drainage see Detail 326DR-2019-2021.
- Refer to Notes For The Professional and 301MJ-2019-2021.
- For thin-set applications over backer units refer to Detail B.
- Refer to Detail 319SR-2019-2021 Detail B for drain.
- If a waterproofing membrane is required – See Detail B.
- For heavy vehicular traffic, confirm compressive strength of insulation by manufacturer.

Continued

