

# TILE INSTALLED ON CEMENT MORTAR OVER SOLID BACKING ON INTERIOR/EXTERIOR WALLS

## 307W-2019-2021

### SUITABLE SUBSTRATES

- Concrete or masonry.

### MATERIALS

- TILE
- METAL LATH (optional) – 1.4kg/m<sup>2</sup> (ASTM C847)
- SCRATCH COAT – 7 mm minimum. See Tile Specification Section Mixes 2.9.2.1.
- MORTAR BED – (20 mm+) See Tile Guide Specification Section Mixes 2.9.2.3.
- BOND COAT – **Interior:** Portland cement slurry on fresh mortar bed or dry-set (minimum acceptable standard ANSI A118.1 or ISO 13007 C1) mortar on mortar bed cured for a minimum of 24 hours. Organic adhesives (Type 1, interior dry surfaces only) (minimum acceptable standard ANSI A136.1 or ISO 13007 D1) on mortar bed cured for minimum of 7 days. Metal lath may be required for surfaces that present bonding problems. **Exterior:** Single or two component liquid latex-Portland cement mortar (minimum acceptable standard ANSI A118.4 of ISO 13007 C2S1).
- GROUT – **Interior:** Latex-Portland cement grout (minimum acceptable standard ANSI A118.6 or ISO 13007 CG1) epoxy grout (minimum acceptable standard ANSI A118.3 or ISO 13007 RG). **Exterior:** Latex-Portland cement grout (minimum acceptable standard ANSI A118.6 or ISO 13007 CG1).

### APPLICATION

- Attach metal lath, if required, according to manufacturer's recommendations. Apply scratch coat and cure overnight. Apply mortar bed to required thickness. Finished tolerance of mortar bed not to 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. Apply bond coat to mortar bed surface. Use proper notched trowel to ensure adequate bond. 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 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

- Manufacturer's recommendations to be followed.
- Exterior tile installations not to be attempted with a temperature of less than 12°C unless otherwise stated by manufacturer. Do not use paper-back mounted tile. Mesh-back mounted tile for exterior use or in locations of extreme moisture should not be used unless the manufacturer guarantees that the material is suitable for this type of installation.

### OTHER CONSIDERATIONS

- Latex additive is recommended for modification of scratch coat, mortar bed and Portland cement bond coat. Follow manufacturer's recommendations. Where job conditions require additional thickness, allow 24 hours cure between coats.
- Tile used on exterior applications must be frost resistant.
- It is recommended to back butter stone or agglomerated stone in wet indoor or exterior installations.
- Refer to Notes For The Professional and 301MJ-2019-2021.
- Waterproofing membrane if required must be specified. (ANSI A118-10) Follow manufacturer's recommendations.
- It is suggested to leave last 13 mm of vertical grout joints ungrouted at every 600 mm to allow moisture to escape at the bottom of the wall.
- Latex Portland cement mortars may require 14 – 60 days cure before exposure to water. Verify with the manufacturer the correct cure time required. Alternatively, to reduce the curing time required, a rapid set mortar may be more suitable.

