

# MANDARIN STONE

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HOW TO TILE 20MM PORCELAIN TO A CONCRETE SUBSTRATE

## PREPARATION

The concrete must be fully cured for at least 6 weeks or 1 week for every 25mm thickness of screed, to enable movement caused by drying shrinkage to have taken place.

The concrete must be clean, dry and free from dust, laitance or any contaminants which may act as a release agent and prevent the adhesive from bonding to the concrete. If the surface of the concrete is dusty then it should be dry-brushed with a wire brush to remove the loose dust. The surface should then be sealed with Norcros Prime Bond diluted 1:4 with clean water and allowed to dry. If required, the concrete may be levelled with Floor Levelling Compound such as the Norcros Pro 50.

## FIXING

Fix tiles in a cement-based adhesive such as **Norcros Rapid Flexible SI**. Refer to the packaging or product data sheets for information regarding mixing ratios. Mix the adhesive as per the instructions by adding the powder to clean water and stir until a smooth, lump free consistency is obtained. Mix only enough that can be used within the pot life of the product (around 30 minutes at 20°C). **NB.** This will be extended in cold weather and reduced in warm conditions. **Norcros Standard Set Flexible SI** may be the preferred choice if a longer pot life is preferred.

Using a suitable, solid-bed notched floor trowel held at a 45° angle, spread the adhesive onto the floor to form parallel ribs into which the tiles should be pushed with a firm twisting action, this will collapse the ribs of adhesive and produce a 3-4mm solid bed of adhesive beneath the tiles. Work in small areas and discard any adhesive that begins to dry or 'skin over'. Tiles with deeply keyed back profiles may require the back of the tile to be buttered with adhesive. Every so often, lift a tile to ensure that it is in full contact with the adhesive and that no voids are left in the adhesive bed. Any adhesive residue on the surface of the tiles should be wiped off with a damp sponge before the adhesive sets. If this is not done it can prove tricky to remove dried on residue. Remove deposits of adhesive which may build up in the gaps between the tiles. **DO NOT WALK ON THE TILES UNTIL THE ADHESIVE HAS SET**, this is generally 3 hours approx for rapid setting adhesives or 24 hours approx for standard set adhesives.

## CUTTING TILES

Cutting should be carried out using water cooled, diamond bladed bench power saw. It must however be noted that the final aesthetic finish achieved will depend greatly upon the choice of cutting mechanism and level of skill used by the operator. Equipment and blades specifically for the cutting of 20mm Porcelain should be used.

The cutting blade should be water suppressed whenever cutting the paving to control dust and cool the blade.

**Please note that high quality diamond blades should be utilised at all times. If a blunt or worn diamond blade is used, shelling or chipping of the tile edge could occur.**

If more than 25% of a flag or slab requires cutting then the remaining piece should be cut from the internal corner of the cut to the external corner of the flag or slab, at an angle of preferably 45°.

## GROUTING

Use either Norcros Flexible Wide Joint Floor & Wall Tile Grout or Norcros 4 into 1 Grout. Clean out any dust, dirt and adhesive from between the tiles and make sure that the joints are dry.

**Important:** Once paving has been laid, rake out any excess mortar between the joints to the base level of the flag with a suitable tool. This is to ensure the supplied grouting material fills all joints to the entire depth and width of the flag joint.

Approximately 4-5 parts grout powder should be added to 1 part water, ensuring that the powder is added to the liquid to prevent the product from flash setting. Manually mix the grout to reduce the amount of air incorporated into the mix.

Holding a soft rubber grout float, sweep the mixed grout diagonally across the tiles, ensuring that the grout is pushed fully into the joints.

**NB.** Before grouting commences trial a small inconspicuous area to check that the grout does not stain the tiles. If there is a risk of any staining, the tiles should be fully sealed using a proprietary sealer before grouting begins.

## CLEANING

To finish the installation, clean off as much grout from the surface of the tiles as possible and allow the grout to become touch dry. Clean off the grout residues with a damp sponge wiped diagonally across the tiles. Allow the tiles to dry and buff the surface with a dry cloth. Any stubborn residues may be cleaned off with Fila Deterdek Pro.