M40 STONE/ CONCRETE/ QUARRY/ CERAMIC TILING/ MOSAIC

To be read with Preliminaries/ General Conditions.

TYPES OF TILING/ MOSAIC

110 TILING TO DECKS
Tiles: Soul Wood.
Manufacturer/ Supplier: Porcelain Plus.
Colour: Grey.
Finish: Textured.
Size: 900mm X 150mm.
Thickness: 10.5mm.
Background/ Base: 25mm Fermacell Power Panel H2O Flooring fixed as manufacturers recommendations to 18mm WBP Plywood.
Preparation: As clause 230, 310 and 392.
Bedding: As clause 710.
Adhesive: Norcros Thickbed Porcelain and Stone Tile Adhesive
Joint width: minimum 3mm.
Grout: Norcros 4 into 1 Floor and Wall Tile Grout.
Type/ classification: BS EN 13888 CG2.
Or
Should a fully impervious grout be required use Norcros Super Epoxy.
Type/ classification: BS EN 13888 RG1.
Movement joints: Movement joints should extend through the tiling and its bed and coincide with any structural movement joints. British Standard BS 5385: Part 3: 2007 recommends that movement joints should be provided around the perimeter of the tiled installation (including door thresholds) with intermediate movement joints being provided in larger areas at 8m to 10m intervals, at junctions between different substrates, door thresholds and between existing substrates and new heated screeds. On suspended floors stress relieving joints should be provided over supporting walls or beams where there is a risk of flexing.
TILING TO WALLS
Tiles: Soul Wood.
Manufacturer/ Supplier: Porcelain Plus
Colour: Grey.
Finish: Textured.
Size: 900mm X 150mm.
Thickness: 10.5mm.
Background/ Base: 10mm Fermacell Power Panel H2O Board installed as manufacturer's recommendations.
Preparation: As clause 230, 310 and 392.
Bedding: As clause 651.
Adhesive: Norcros One Part Flexible Tile Adhesive.
Joint width: 2mm.
Grout: Norcros 4 into 1 Floor and Wall Tile Grout.
Type/ classification: BS EN 13888 CG2.
Or
Should a fully impervious grout be required use Norcros Super Epoxy.
Type/ classification: BS EN 13888 RG1.
Movement joints: Movement joints should coincide and be continuous with any existing structural movement joints. The recommendations contained within Section 3.5.2 ‘Location of Movement Joints’ of British Standard BS 5385: Part 1; 2009, state that movement joints should be provided over existing and/or structural movement joints, where tiling abuts other materials, at junctions between different substrates, at vertical corner, at 3m to 4.5m centres both horizontally and vertically and in areas where stresses are likely to be concentrated such as at changes of alignment. An increase in the frequency of movement joints should be considered if large degrees of thermal movement or vibration are expected within an installation.

GENERALY

NORCROS ADHESIVES PRODUCTS will be applied in accordance with the site work instructions on the manufacturer’s product data sheets. All Norcros products are covered with a Lifetime guarantee when used in accordance with the manufacturer’s instructions.
SUITABILITY OF BACKGROUNDS/ BASES
- Background/ base tolerances: To permit specified flatness/ regularity of finished surfaces given the permissible minimum and maximum thickness of bedding.
- Suitable and sufficiently strong to receive and support a tiled finish.
- Suitable for the conditions to which it will be exposed.
- Fully dry and free from contamination, laitance etc.
- New background drying times (minimum):
  - Concrete walls: 6 weeks.
  - Brick/ block walls: 6 weeks.
  - Rendering: 2 weeks.
  - Gypsum plaster: 4 weeks.
- New base drying times (minimum):
  - Concrete slabs: 6 weeks *.
  - Cement: sand screeds: 3 weeks *.
  - * Drying time will be reduced to 48 hours if Norcros Permalayer Anti-Fracture membrane is used.

FALLS IN BASES
- General: Give notice if falls are inadequate.

EXTERNAL TILING
- It is essential that tiles are fixed in a solid void-free bed of a suitable adhesive.
- Tiles should not be fixed in temperatures lower than 5°C and the background temperature must be at least above freezing. Irrespective of the ambient temperature.

SAMPLES
- General: Submit representative samples of the following: ______ .

CONTROL SAMPLES
- General: Complete sample areas, being part of finished work, in locations as follows: ______ .
- Approval of appearance: Obtain before proceeding

PREPARATION

EXISTING BACKGROUNDS/ BASES GENERALLY
- Efflorescence, laitance, dirt and other loose material: Remove.
- Deposits of oil, grease and other materials incompatible with the bedding: Remove.
- Tile, paint and other nonporous surfaces: Clean.
- Wet backgrounds: Dry before tiling.
392 TILE BACKER BOARDS
- To be fixed in accordance with the manufacturers recommendations.
- Must be clean, dry, rigid and well-braced.
- Consult the board manufacturer regarding the suitability of the boards for the intended conditions to which it will be subjected.

FIXING

510 FIXING GENERALLY
- Colour/ shade: Unintended variations within tiles for use in each area/ room are not permitted.
- Variegated tiles: Mix thoroughly.
- Adhesive: Compatible with background/ base. Prime if recommended by adhesive manufacturer.
- Use of admixtures with cementitious adhesives: Only admixtures approved by adhesive manufacturer.
- Cut tiles: Neat and accurate.
- Fixing: Provide adhesion over entire background/ base and tile backs.
- Final appearance: Before bedding material sets, make adjustments necessary to give true, regular appearance to tiles and joints when viewed under final lighting conditions.
- Surplus bedding material: Clean from joints and face of tiles without disturbing tiles.

530 SETTING OUT
- Joints: True to line, continuous and without steps.
- Joints on walls: Horizontal, vertical and aligned round corners.
- Joints in floors: Parallel to the main axis of the space or specified features.
- Cut tiles: Minimize number, maximize size and locate unobtrusively.
- Joints in adjoining floors and walls: Align.
- Joints in adjoining floors and skirtings: Align.
- Movement joints: If locations are not indicated, submit proposals.
- Setting out of ______: Drawing references: ______.
- Setting out of ______: Submit proposals.

540 LEVEL OF FLOOR TILING
- Permissible deviation in level from datum for ______.

550 FLATNESS/ REGULARITY OF TILING
- Sudden irregularities: Not permitted.
- Deviation of surface: Measure from underside of a 2 m straightedge with 3mm thick feet placed anywhere on surface. The straightedge should not be obstructed by the tiles and no gap should be greater than 6 mm, i.e. a tolerance of ± 3mm.
LEVEL OF TILING ACROSS JOINTS
- Deviation (maximum) between tile surfaces either side of any type of joint:
  - 1 mm for joints less than 6 mm wide.
  - 2 mm for joints 6 mm or greater in width.

THIN BED ADHESIVE - SOLID (WALLS)
- Application: By floated coat of adhesive to dry background in areas of about 1 m². Comb surface.
- Tiling: Apply thin even coat of adhesive to backs of dry tiles. Fill any ribbed, deep keyed or button profiles. Press tiles firmly onto float coat.
- Finished adhesive thickness: 3 mm or within the range allowed by the adhesive manufacturer.

THICK BED ADHESIVE - SOLID (FLOORS)
- Application: By floated coat of adhesive to dry base and comb surface.
- Tiling: Apply coat of adhesive to backs of dry tiles. Fill any ribbed, deep keyed or button profiles. Press tiles firmly onto position.
- Finished adhesive thickness: Within range recommended by manufacturer.

MOVEMENT JOINTS/ GROUTING/ COMPLETION

GROUTING
- Sequence: Grout when bed/ adhesive has set sufficiently to prevent disturbance of tiles.
- Joints: 6 mm deep (or depth of tile if less). Free from dust and debris.
- Grouting: Fill joints completely, tool to profile, clean off surface. Leave free from blemishes.
- Profile: ______. 
- Polishing: When grout is hard, polish tiling with a dry cloth.

COLOURED GROUT
- Staining of tiles: Not permitted.
Evaluating risk of staining: Apply grout to a few tiles in a small trial area. If discoloration occurs apply Norcros Impregnating Sealer to tiles and repeat trial.