



TILING SPECIFICATIONS

SPECIFICATION NUMBER: NR204-16

PREPARED BY: Mike Cubley

PREPARED FOR: Porcelain Plus

ATTENTION: Kirk Pollock

INSTALLATION: 712 Turner Floor and Wall Tiling Specification.

M40 STONE/ CONCRETE/ QUARRY/ CERAMIC TILING/ MOSAIC

To be read with Preliminaries/ General Conditions.

TYPES OF TILING/ MOSAIC

110 TILING TO HEATED FLOORS

Tiles: Porcelain.

Manufacturer/ Supplier: Porcelain Plus

Product reference: Kore.

Colour: Ivory

Finish: TBA.

Size: 450mm x 450mm and 600mm X 600mm

Thickness: 9mm and 9.5mm.

Background/ Base: 75mm Poured Concrete incorporating a piped underfloor heating system.

Preparation: As clauses 240, 310 and 320.

In wet areas consideration should be given to tanking with Norcros Wets Seal Tanking Kit as clause 471.

Bedding: As clause 710 – Ensuring solid bed fixing is achieved.

Adhesive: Norcros Thickbed Porcelain and Stone Tile Adhesive.

Joint width: Minimum 3mm.

Grout: Norcros 4 into 1 Flexible Floor and Wall Tile Grout.

Type/ classification: BS EN 13888 CG2.

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: 2015 recommends that movement joints should be provided around the perimeter of the tiled installation (including door thresholds). In larger areas, intermediate movement joints should be provided at 5m intervals in both horizontal directions to provide 25m²bays. These bay sizes may be increased to 40m² when Norcros Permalayer anti-fracture matting is used. On suspended floors stress relieving joints should be provided over supporting walls or beams where there is a risk of flexing.

Accessories: Fill perimeter movement joints with Norcros 4 into 1 Silicone Sealant, colour to match grout as clause 815.



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111 TILING TO HEATED FLOATING TIMBER FLOORS

Tiles: Porcelain.

Manufacturer/ Supplier: Porcelain Plus

Product reference: Kore.

Colour: Ivory

Finish: TBA.

Size: 450mm x 450mm and 600mm X 600mm

Thickness: 9mm and 9.5mm.

Background/ Base: Floating timber floor incorporating a piped underfloor heating system laid into Gypsum Boards installed as manufacturers recommendations.

Mechanically fix 10mm non insulated tile backer boards through the Gypsum boards in to the floating timber floor at 300mm centres as manufacturer's recommendations.

Lay Norcros Permalayer in to a solid 2mm bed of Norcros Rapid Porcelain Grey Tile Adhesive and allow to dry.

Preparation: As clauses 240, 310, 396 and 392.

Bedding: As clause 710 – Ensuring solid bed fixing is achieved.

Adhesive: Norcros Thickbed Porcelain and Stone Tile Adhesive.

Joint width: Minimum 3mm.

Grout: Norcros 4 into 1 Flexible Floor and Wall Tile Grout.

Type/ classification: BS EN 13888 CG2.

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: 2015 recommends that movement joints should be provided around the perimeter of the tiled installation (including door thresholds). In larger areas, intermediate movement joints should be provided at 5m intervals in both horizontal directions to provide 25m²bays. These bay sizes may be increased to 40m² when Norcros Permalayer anti-fracture matting is used. On suspended floors stress relieving joints should be provided over supporting walls or beams where there is a risk of flexing.

Accessories: Fill perimeter movement joints with Norcros 4 into 1 Silicone Sealant, colour to match grout as clause 815.



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112 TILING TO WALLS

Tiles: Porcelain.

Manufacturer/ Supplier: Porcelain Plus

Product reference: Kore.

Colour: Ivory.

Finish: TBA.

Size: 450mm x 450mm and 600mm X 600mm

Thickness: 9mm and 9.5mm.

Background/ Base: Gypsum Plasterboard fixed to timber studwork.

Preparation: As clauses 310 and 390.

In wet areas consideration should be given to tanking with Norcros Wets Seal Tanking Kit as clause 471.

Bedding: As clause 651 – Ensuring solid bed fixing is achieved.

Adhesive: Norcros One Part Flexible Tile Adhesive.

Joint width: 2mm.

Grout: Norcros 4 into 1 Flexible Floor and Wall Tile Grout.

Type/ classification: BS EN 13888 CG2.

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.

Accessories: Fill perimeter movement joints with Norcros 4 into 1 Silicone Sealant, colour to match grout as clause 815.

GENERALLY

- 200 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.



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210 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.

215 FALLS IN BASES

- General: Give notice if falls are inadequate.

240 UNDERFLOOR HEATING

- Cement: sand screeds must be a minimum of 3 weeks old before the heating is brought to its intended operating temperature and maintained at that temperature for a minimum of 3 days. It should then be allowed to cool to room temperature prior to the commencement of tiling.
- The heating may be switched on 14 days after completion of tiling, raising the temperature gradually at a rate of 5°C per day.

250 SAMPLES

- General: Submit representative samples of the following: _____ .

260 CONTROL SAMPLES

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

PREPARATION

310 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.

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320 CONCRETE/ SCREEDS

- New concrete must be a minimum 6 weeks old before application of a cement: sand screed or tiled finish *.
- New cement: sand screeds should be cured for at least 7 days prior to being subjected to continuous air drying for a further 2 weeks before tiling commences (minimum total drying time = 3 weeks) unless specified otherwise by the screed manufacturer *.
- Loose or hollow portions: Cut out and repair Cut out and repair using Norcros Rapid Repair Mortar
- Dusty or porous concrete/screeds should be thoroughly dry brushed and then primed with Norcros Prime Bond diluted 1: 4 with water.
- * The drying time will be reduced to 48 hours if Norcros Permalayer Anti-Fracture membrane is used.

390 PLASTERBOARD BACKGROUNDS

- Boards: Dry, securely fixed and rigid with no protruding fixings and face to receive decorative finish exposed.
- Plasterboard should be a minimum 12.5mm thick when fixing to timber framing or battening.
- Boards should be fixed in accordance with the manufacturers recommendations.
- The maximum weight of tiling should not exceed 32kg/m² (including the weight of adhesive), generally equivalent to:
 - o Ceramic tiles with a maximum thickness of 12.5mm
 - o Natural stone with a maximum thickness of 10mm
- In instances where it is intended to fix tiles to heights exceeding 2400mm, the board manufacturers should be consulted.
- Plasterboard is not generally considered to be a satisfactory background for tiling in frequently wet areas. Tanking with Norcros Wet Seal is required in these areas.
- When fixing tiles using a cement-based adhesive, the plasterboard should be primed using a neat application of Norcros Prime Bond, brush applied to the background. The primer should be allowed to dry before fixing tiles.



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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.

396 FLOATING TIMBER FLOORS

- Floating timber floors are generally constructed of either a concrete or timber base or 'raft' onto which a dense polystyrene is bonded (approximately 50mm thick). Tongue & groove timber boards, generally flooring grade chipboard are loose laid on top of the insulating layer to provide a base to receive floor coverings/finishes. Heating pipes may be bedded in the insulation layer.
- The stability/rigidity of the floor is dependent upon:
 1. The concrete/timber base beneath the insulation layer being flat.
 2. The insulation layer being high density and therefore having little compression/deformation.
- The tongue & groove boards should be glued together using a good quality wood glue.
- If the structure is considered to be sufficiently free from deflection, the floor will be suitable for direct application of ceramic tiles. If however, the amount of deflection within the floor is considered to be too great to support a rigid tile finish, the boards should be overlaid with exterior grade WBP grade Class 3 plywood of a suitable thickness to prevent deflection under load, screw fixed at 300mm centres. It should be noted however, that in some installations, even with a plywood overlay, a floating timber floor may not be deemed to be sufficiently deflection-free to support a rigid ceramic tile finish.
- Timber is not generally considered to be a satisfactory background for tiling in wet areas. Tanking with Norcros Wet Seal is required in these areas.

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.

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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 _____ .
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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 \pm 3mm.

560 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.

651 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.

710 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

815 SEALANT MOVEMENT JOINTS

- Joints: Extend through tiles and bedding to base/ background. Centre over joints in base/ background.
- Width: Minimum 6mm.
- Sealant: Norcros 4 into 1 Silicone Sealant
- Colour: To match grout colour.
- Preparation and application: As section Z22.

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875 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.

885 COLOURED GROUT

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



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