

Installation Recommendations – Ceramic Floor and Wall Tiles

This information is based on the recommendations given in the following codes of practice:

BS 5385-1 The design and installation of internal ceramic and natural stone wall tiling and mosaics in normal conditions

BS5385-3 The design and installation of ceramic floor tiles and mosaics

BS 5385-4 Tiling and mosaics under specific conditions

BS EN 13888 Grouts for tiles. Definitions and specifications

BS 8000:part 11 General Principles for wall and floor tiling

Floor Tiles

Sub Floor preparation

General Requirements

The base/background for tiling must be sufficiently flat – max 3mm gap per 2M straight edge

Sufficient strength and rigidity to support the tile finish without movement

Clean, dry and free from contaminants.

Specific Requirements by base/subfloor type:

Sand/Cement Screed

New screeds must be fully dry – minimum of 3 weeks

Remove any unsound material and adhesive residue from existing screeds

Make existing screeds good with 1:3 cement:sand mortar over a suitable slurry bonding coat

Asphalt

Asphalt must be flooring grade and sufficiently level for tiling

Ensure the surface is sound and laid on a firm rigid base

Existing ceramic tile/natural stone

The existing tile finish must be securely bonded and in a sound/clean condition

Remove any loose tiles and make good with a 1:3 cement:sand mortar over a suitable slurry bonding coat

Vinyl Tiles or Vinyl Sheet

The existing vinyl finish must be securely bonded and in a sound/clean condition

Remove any loose tiles and make good with a suitable levelling compound

Concrete

Must be fully dry – minimum of 6 weeks

Plywood over floorboards/chipboard flooring

Ensure existing floor is dry , securely screwed down and level

Use WBP or marine grade plywood with a minimum thickness of 15mm

Before use apply a coat of universal bonding agent to back and edges of boards

Stagger the joints and leave 0.5 to 1mm gap between boards

Screw down boards at 300mm centres

Apply a suitable universal bonding agent to surface to be tiled

Tiling onto Heated Screeds

The screed must be fully dry – minimum 3 weeks

Turn off heating 24 hours prior to tiling

Allow 8 days before grouting and a further 6 days before bringing floor to operating temperature at no more than 50C per day increase

Under tile heating system onto cement:sand screed

Base must be fully dry – minimum 6 weeks for concrete, 3 weeks for cement:sand screed

Prime highly absorbent surface with 2 coats of universal bonding agent diluted 1:1 with water.

Installation and Grouting

Suitable bedding material (tile adhesive) and grout materials must be selected according to substrate type and operating conditions.

BS5385-3 gives details of bedding techniques and material selection

BS5385-4 gives advice for tiling in specific conditions such as wet, sterile, or chemical attack

Excess grout should be removed from tiles in a timely fashion as it will be difficult to remove once fully dried.

Movement Joints

Movement joints should be located and designed as per BS5385-3.

In summary they need to be positioned in the following locations:

Over structural movement joints

Around perimeter of floor and around fixed machinery, steps and other obstacles

When tiling across junction of different base materials

At 30M intervals with stress relieving joints every 10M.

Over supporting walls and beams

Movement joints must have a gap of least 6mm. Structural movement joints must be the width of the joint in the substrate and at least 6mm.

Wall Tiles

Important – Tiles with Crackle Glaze Finish

Following tile installation and prior to grouting the tiles MUST be sealed using a suitable crackle Glaze Sealant. Failure to do so will lead to staining and discolouration of the tiles.

Wall Preparation

General Requirements

The base/background for tiling must be sufficiently flat

Sufficient strength and rigidity to support the tile finish

Clean, dry and free from contaminants.

Specific Requirements by base/background type:

Gypsum Plaster

New plaster must be fully dry – minimum 4 weeks

Defective areas should be made good

Prime polished surfaces with 1:4 universal bonding agent and water

The weight of tiling must not exceed 20Kg/m²

Gypsum Plasterboard

Boards must be dry and securely fixed

The weight of tiling must not exceed 32Kg/m²

Cement:sand rendering

Render must be fully dry – minimum 2 weeks

Existing Glazed Tiles

The existing tile finish must be securely bonded and in a sound/clean condition

Remove any loose tiles and make good with a 1:3 cement:sand mortar over a suitable slurry bonding coat

Plywood

Use WBP or marine grade plywood

Before use apply a coat of universal bonding agent to back and edges of boards

Screw down boards at 300mm centres to framework

Apply a suitable universal bonding agent to surface to be tiled

Painted Walls

Ensure paint is in sound condition

Test by applying carpet tape to painted surface for 10 minutes. If paint is removed with tape all unsound areas of paint must be removed by mechanical means

Do not use paint stripper

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