

# Ultimate

Highly Flexible, Rapid Setting  
Floor & Wall Tile Adhesive

-  High bond strength and flexibility makes Ultimate highly suitable for a wide range of tiles and substrates
-  Ideal for use above underfloor heating systems
-  Fast track adhesive - use on green screeds
-  Suitable for use in commercial and heavy traffic environments
-  No additives required - simply mix with water
-  3mm - 15mm bed depth
-  Walk on and grout after 3 hours
-  Internal and external use

Highly  
Polymer  
Modified

S2  
Flexible  
& High Bond  
Strength

Suitable For  
Cementitious  
Green  
Screeds



# TILEMASTER Ultimate

## Highly Flexible, Rapid Setting Floor & Wall Tile Adhesive

### DESCRIPTION:

Tilemaster Ultimate is a highly polymer modified, rapid setting, highly flexible, cement based floor and wall tile adhesive.

Tilemaster Ultimate has been specially formulated for fixing a large variety of tiles including ceramic, porcelain, quartz/composite and natural stone to substrates subject to limited movement and/or vibration. Its rapid setting capability allows for light foot traffic and grouting after 3 hours.

Tilemaster Ultimate's unique formulation allows tiling onto cementitious green screeds after 7 days.

Tilemaster Ultimate is ideal for use in areas subject to prolonged or permanent wet conditions, such as swimming pools. Tilemaster Ultimate can be used internally and externally and it is unaffected by frost after setting.

**N.B.** Tilemaster Ultimate is suitable for use with natural stone tiles, but given the unique characteristics of natural stone tiles it is advised that any stone is checked and tested for suitability before fixing commences.

### SUITABLE FOR MOST TILE TYPES INCLUDING:

- ✓ Ceramics
- ✓ Porcelain
- ✓ Natural Stone
- ✓ Quartz
- ✓ Composite
- ✓ Terracotta
- ✓ Quarry

### AREAS OF USE:

- ✓ Walls
- ✓ Floors
- ✓ Internal
- ✓ External
- ✓ Dry Areas
- ✓ Wet Areas
- ✓ Swimming Pools
- ✓ Underfloor Heating
- ✓ Limited Movement/  
Vibration

### SUBSTRATES:

*Specific substrate preparation can be found in the Substrate Preparation Guide section and these instructions must be followed before tiling commences.*

- ✓ Tile Backer Boards
- ✓ T&G Timber Floorboards
- ✓ Steel
- ✓ Sand & Cement Screeds
- ✓ Plasterboard
- ✓ Plaster
- ✓ Green Cementitious Screeds
- ✓ Plywood Overlay  
(Class 3 Flooring Grade)
- ✓ Flooring Grade Asphalt
- ✓ Existing Vinyl Tiles
- ✓ Existing Ceramic,  
Porcelain & Natural  
Stone Tiles
- ✓ Epoxy DPM
- ✓ Concrete Brick/Block
- ✓ Concrete
- ✓ Cement Render
- ✓ Calcium Sulphate  
Screeds

### PREPARATION:

Before starting, all substrates must be clean, dry, sound and strong enough to support the weight of the tiles, tile adhesive and grout. Remove all dust, dirt, oil, grease and other contaminants that may affect adhesion.

### MIXING & APPLICATION:

Always mix powder to water and mix to a smooth, lump free consistency. As a guide for powder to water ratio, 20kg of powder requires approximately 3.6 – 3.8 litres of water. Never add water after initial mixing, as this will impair the strength of the adhesive. Product that has started to set must be discarded.

Key the adhesive into the substrate and trowel out to the required adhesive bed thickness using a notched trowel. Within the open time of the adhesive, bed in the tiles ensuring that there is full, solid bed coverage under the tiles. Regular checks should be carried out to ensure that there are no hollow pockets or voids beneath the tile.

Back buttering tiles will help achieve solid bed fixing and will significantly increase the bond strength.

Clean surplus adhesive from the tiles and joints as soon as possible, as set adhesive will prove very difficult to remove later. Clean tools immediately after use with clean water.

### GROUTING:

Do not start grouting until the adhesive has set. This time can vary depending on temperature and site conditions. Impervious surfaces may extend the set time. In ideal conditions grouting can begin after 3 hours. If you are tiling an area of limited movement and/or vibration then you must use a flexible grout such as Tilemaster Grout 3000.

**N.B.** If using Tilemaster Ultimate onto a substrate subject to lateral movement and/or vibration such as T&G timber floorboards, Tilemaster Grout 3000 will require the addition of Tilemaster Flexmaster additive in order to increase the flexural properties of the grout. For more information please contact our technical department on 01772 456831.

# TILEMASTER Ultimate

## Highly Flexible, Rapid Setting Floor & Wall Tile Adhesive

### SUBSTRATE PREPARATION GUIDE:

Preparation of all substrates is crucial to the success and longevity of all tiling installations. All substrates, as stated in BS 5385, must be rigid, flat, clean, dry and sound and be free of any contaminants. Anything that could compromise adhesion to the substrate, such as dust, dirt, oil, grease, laitance, sealers, waxes and curing agents will need to be mechanically removed. Ensure that all substrates and backgrounds are strong enough to carry the weight of the tiles and fixing materials, and that any maximum weight limits are not exceeded.

### Floors:

**Underfloor Heated Screeds:** New sand & cement screeds must be allowed to dry for a minimum of 4 weeks. After this drying out period, the underfloor heating system should be turned on at its lowest temperature setting and the screed should be heated slowly at a maximum rate of 5°C per day up to the maximum operating water temperature, as recommended by the heating manufacturer, and maintained at that level for a further 3 days before being allowed to cool to room temperature. Alternatively, in cold conditions reduce the temperature of the screed to below 15°C prior to tiling. To commission the underfloor heating properly the flow temperature should not be limited by room thermostats. The room thermostats should be disconnected and the temperatures controlled manually via the manifold mixing valve, or at the boiler.

Ensure that the surface is clean, dry and free of any contaminants. Prime the surface with Tilemaster Primeplus, diluted 3 parts water to 1 part Tilemaster Primeplus, and allow to dry. If the substrate is overly porous then further coats of diluted Primeplus may be required.

Once the floor tiling is installed, the heating system should not be run for at least ten days in order to allow the fixing materials to cure/dry thoroughly. When turning on the heating, start at the lowest temperature possible and then gradually increase the temperature of the system, on the thermostat, by no more than 1°C per day until the required temperature is achieved.

Depending on the type and size of the tile being fitted an uncoupling membrane, such as Tilemaster Anti-Fracture Mat, may need to be incorporated into the installation.

**Underfloor Heating (Electric):** When tiling onto an electric underfloor system the cables should be encapsulated into a flexible Tilemaster levelling and smoothing compound. When the compound has dried prime with Tilemaster Primeplus, diluted 3 parts water to 1 part Tilemaster Primeplus, and allow to dry.

Once the floor tiling is installed, the heating system should not be run for at least ten days in order to allow the fixing materials to cure/dry thoroughly. When turning on the heating, start at the lowest temperature possible and then gradually increase the temperature of the system, on the thermostat, by no more than 1°C per day until the required temperature is achieved.

Depending on the type and size of the tile being fitted an uncoupling membrane, such as Tilemaster Anti-Fracture Mat, may need to be incorporated into the installation.

**Tile Backer Board Overlay:** Tile backer boards should be fixed following the manufacturers' instructions and be of the required thickness and material for the specific application. Ensure that the boards are securely fixed and adequately braced to provide a rigid surface. Prime the surface with one coat of Tilemaster Primeplus, diluted 3 parts water to 1 part Tilemaster Primeplus, and allow to dry.

**T&G Timber Floorboards:** Ensure that the boards are conditioned, screwed to supporting joists at a maximum 300mm centres and that the floor is adequately braced, rigid and flat - noggins might be necessary between the joists in order to achieve the required rigidity. Ensure that there is sufficient ventilation beneath the substrate and that the floor will take the weight of the tiles, tile adhesive and grout. The surface must be clean, dry and free of any contaminants (surface coatings such as varnish will need to be removed by abrading). Prime the surface with one coat of Tilemaster Primeplus, diluted 3 parts water to 1 part Tilemaster Primeplus, and allow to dry. New timber does not require priming prior to tiling.

Tilemaster Adhesives advise that all chipboard floors, in keeping with some chipboard manufacturers' recommendations, are not to be tiled directly and are over-boarded with a suitable tile backer board.

**Steel:** Ensure that the metal substrate is rigid, clean, dry and free of any contaminants. Prime the surface with one coat of Tilemaster Prime+ Grip and allow to dry.

**Sand & Cement Screeds:** New sand & cement screeds must be allowed to dry for a minimum of 4 weeks. Ensure that the surface is clean, dry and free of any contaminants. Prime the surface with Tilemaster Primeplus, diluted 3 parts water to 1 part Tilemaster Primeplus, and allow to dry. If the substrate is overly porous then further coats of diluted Primeplus may be required.

**Green Cementitious Screeds:** New internal screeds must be allowed to dry for a minimum of 7 days in good drying conditions. The substrate must be visibly dry with no standing water or damp patches evident. Ensure the surface is clean, dry and free of any contaminants. Prime the surface with Tilemaster Primeplus, diluted 3 parts water to 1 part Tilemaster Primeplus, and allow to dry. If the substrate is overly porous then further coats of diluted Primeplus may be required.

**Class 3 Flooring Grade Plywood Overlay:** Ensure that the timber subfloor is adequately braced, rigid and flat. The plywood must be conditioned to the environment in which it is to be used and be of the required thickness. The plywood must be securely fixed to the subfloor by screw fixing at 150mm centres, staggering the board joints of all plywood sheets. Ensure the surface is clean, dry and free of any contaminants. Prime the surface of existing plywood with one coat of Tilemaster Primeplus, diluted 3 parts water to 1 part Tilemaster Primeplus, and allow to dry. New flooring grade plywood does not require priming prior to tiling.

**Flooring Grade Asphalt:** The asphalt must be of a suitable flooring grade and must be hard, sound, in good condition, and well adhered to the substrate. Ensure the surface is clean, dry and free of any contaminants. Prime the surface with one coat of Tilemaster Prime+ Grip and allow to dry.

**Existing Vinyl Tiles:** The existing tiles must be sound, in good condition and be firmly bonded to the original substrate. Remove any loose or damaged tiles and make good. Any surface sealers must be removed along with any other contaminants that could affect adhesion. When the tiles are confirmed clean and dry prime the surface with one coat of Tilemaster Prime+ Grip and allow to dry.

**Existing Ceramic, Porcelain & Natural Stone Tiles:** Ensure that the substrate is rigid and can take the additional weight of the new tiles and fixing materials. The existing tiles must be sound, in good condition and be firmly bonded to the original substrate. Remove any loose or damaged tiles and make good. Any surface sealers must be removed along with any other contaminants that could affect adhesion. When the tiles are confirmed clean and dry prime the surface with one coat of Tilemaster Prime+ Grip and allow to dry.

# TILEMASTER Ultimate

## Highly Flexible, Rapid Setting Floor & Wall Tile Adhesive

**Epoxy DPM:** The Epoxy DPM must be a suitable flooring grade. The DPM must be sound, in good condition, hard and well adhered to the substrate. Ensure the surface is clean, dry and free of any contaminants. Prime the surface with one coat of Tilemaster Prime+ Grip and allow to dry.

**Concrete:** New concrete must be allowed to cure before having a minimum of 6 weeks continuous air drying. Mechanically remove any laitance and other surface contaminants and remove the dust by vacuum. Prime the surface with one coat of Tilemaster Primeplus, diluted 3 parts water to 1 part Tilemaster Primeplus, and allow to dry. If the substrate is overly porous then further coats of diluted Primeplus may be required.

**Power floated concrete will require the surface to be mechanically abraded, to open up the pores and to remove any surface contaminants, before priming.**

**Calcium Sulphate Screeds:** Calcium sulphate screeds dry with laitance on the surface. The laitance must be removed before the tiling commences by mechanically sanding and/or abrading the surface of the screed. After 7 days the underfloor heating (if the screed is heated) can be commissioned. Once commissioned and allowed to cool the screed can then be moisture tested. Calcium sulphate screeds must be confirmed dry via consistent moisture readings across the whole floor.

Tilemaster Ultimate is suitable for use on calcium sulphate screeds providing the residual moisture content of the screed is below 0.5%, or the relative humidity is 75% or below. Ensure that the surface is clean, dry and free of any contaminants. Prime the surface with Tilemaster Primeplus, diluted 3 parts water to 1 part Tilemaster Primeplus, and allow to dry. If the substrate is overly porous then further coats of diluted Primeplus may be required. When the first coat of Tilemaster Primeplus is touch dry, apply a neat coat of Tilemaster Primeplus to the surface.

**Tilemaster Adhesives' preferred adhesive for use on calcium sulphate screeds is Tilemaster AnhyFix. Tilemaster AnhyFix is a gypsum based tile adhesive which is 100% compatible with calcium sulphate screeds. When using Tilemaster AnhyFix, the residual moisture content of the screed must be less than 1%, or the relative humidity must be 85% or below. Once these moisture levels have been reached, the surface is free of any laitance and other contaminants, and the underfloor heating (where installed) has been commissioned, prime the surface with Tilemaster Primeplus, diluted 3 parts water to 1 part Tilemaster Primeplus, and allow to dry. Tiling can then commence using Tilemaster AnhyFix.**

### Walls:

**Cement Render:** Cement render must be allowed to dry for a minimum of 2 weeks. Ensure that the render is true and is firmly bonded to its background and that it is clean, dry and free of any contaminants. Prime the surface with one coat of Tilemaster Primeplus, diluted 3 parts water to 1 part Tilemaster Primeplus, and allow to dry. If the substrate is overly porous then further coats of diluted Primeplus may be required.

**Concrete Brick/Block:** New concrete brick/blocks must be allowed to dry for a minimum of 6 weeks. If tiling directly the wall must be flat and smooth faced. Prime the surface with one coat of Tilemaster Primeplus, diluted 3 parts water to 1 part Tilemaster Primeplus, and allow to dry.

**Plaster (Finish Coat only):** New plaster must be allowed to dry for a minimum of 4 weeks. Ensure that the plaster is well bonded to its background and that it is completely dry and free of any contaminants. If the plaster has a polished/shiny surface, brush with a stiff bristle brush to abrade/roughen the surface prior to application. A fine wire brush should be used on any water flashed surface, so that any weakly adhered residues are effectively removed. Prime the surface with one coat of Tilemaster Primeplus, diluted 3 parts water to 1 part Tilemaster Primeplus, and allow to dry. The combined weight of the tile, tile adhesive and grout should not exceed 20kg/m<sup>2</sup>.

Gypsum plaster should not be used in wet areas unless additional protection in the form of a waterproofing tanking system, such as Tilemaster's Tanking Paste/Kit, is used.

**Plasterboard:** Ensure that the boards are dry, free of any contaminants and securely and rigidly fixed. Prime the surface with one coat of Tilemaster Primeplus, diluted 3 parts water to 1 part Tilemaster Primeplus, and allow to dry. The combined weight of the tile, tile adhesive and grout should not exceed 32kg/m<sup>2</sup>

Plasterboard is unsuitable for frequently wet or damp areas and should be waterproofed using Tilemaster Tanking Paste/Kit.

**Tile Backer Boards:** Tile backer boards should be fixed following the manufacturers' instructions and be of the required thickness and material for that specific application. Ensure that the boards are securely fixed and adequately braced to provide a rigid surface. Prime the surface with one coat of Tilemaster Primeplus, diluted 3 parts water to 1 part Tilemaster Primeplus, and allow to dry.

# TILEMASTER **Ultimate**

## Highly Flexible, Rapid Setting Floor & Wall Tile Adhesive


Standard Conformity	Conforms to BS EN 12004 C2 F S2
Minimum Application Temperature	5°C
Bed Thickness	3mm – 15mm
Coverage	20kg will cover approximately 5.5m <sup>2</sup> with a 3mm solid bed application
Pot Life	Approximately 30 minutes at 23°C
Before Grouting	Approximately 3 hours depending on temperature and substrate The set time will be increased at lower temperatures and reduced at higher temperatures * Tiling onto an impervious substrate with a non-porous tile will increase the set time
Working Temperature of Cured Adhesive	-40°C to 90°C
Storage	Store unopened, clear of the ground in cool, dry conditions
Shelf Life	Stored correctly this product has a shelf life of 6 months
Colours	Grey and White
Pack Sizes	20kg
Note	All work must be carried out in accordance with British Standard Code of Practice for floor and wall tiling BS5385

### HEALTH AND SAFETY

Tilemaster Ultimate Adhesive contains cement. Contact with moisture or gauging water sets off an alkaline reaction which may cause skin irritation and/or caustic burns to mucous membranes (e.g. eyes). Irritant to respiratory system. Risk of serious damage to eyes, therefore avoid contact with eyes and prolonged contact with skin. Do not breathe dust. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. Wear suitable gloves (e.g. cotton gloves soaked in nitrile) and eye/face protection. If swallowed, seek medical advice immediately and show this container or label. Keep out of reach of children.  
Low in chromates.

For further information refer to the Material Safety Data Sheet.

The information contained on this spec sheet is given voluntarily and in good faith. It is to the best of our knowledge true and accurate; however it may contain information which is inappropriate under certain conditions of use. The company cannot accept responsibility for any loss or damage due to inappropriate use or the possibility of variations of working conditions and of workmanship outside our control.

 <b>13</b> DoP 015	
Tilemaster Adhesives Ltd Kerakoll Group Tomlinson Road   Leyland PR25 2DY   United Kingdom	
<b>EN 12004:2007 + A1:2012</b> Improved fast setting highly deformable cementitious adhesive	
Transverse Deformation	≥5mm
<b>Bond Strength, as:</b>	
• early tensile adhesion strength	>0.5 N/mm <sup>2</sup>
• initial tensile adhesion strength	>1.0 N/mm <sup>2</sup>
<b>Durability, for:</b>	
• tensile adhesion strength after heat ageing	>1.0 N/mm <sup>2</sup>
• tensile adhesion strength after water immersion	>1.0 N/mm <sup>2</sup>
• tensile adhesion strength after freeze/thaw cycles	>1.0 N/mm <sup>2</sup>