









LevelFlex+ DEPTH

Flexible, Fibre Reinforced,
Rapid Setting Smoothing
and Levelling Compound

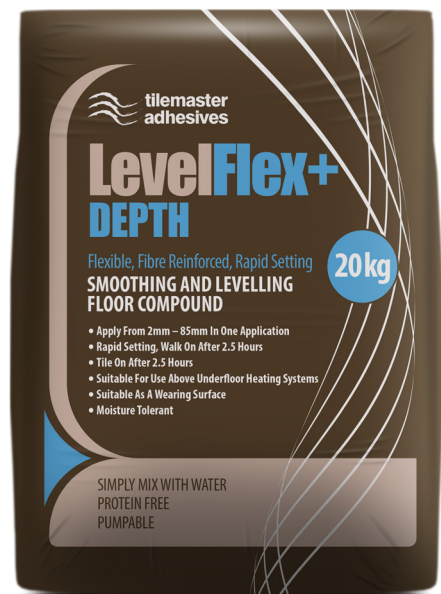
-  Apply From 2mm – 85mm In One Application
-  Rapid Setting, Walk On After 2.5 Hours
-  Tile On After 2.5 Hours
-  Suitable For Use Above Underfloor Heating Systems
-  Suitable As A Wearing Surface
-  Moisture Tolerant
-  Protein Free
-  Pumpable

Walk On After
2.5 Hours

Tile After
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Apply from
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85mm**

Excellent
Flow And
Surface
Finish



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DESCRIPTION:

LevelFlex+ DEPTH is a flexible, fibre reinforced, rapid setting, protein free smoothing and levelling compound, designed for preparing subfloors prior to the installation of floor coverings. LevelFlex+ DEPTH has been developed to allow the product to be applied from depths of 2mm – 85mm in one application without the need for additional aggregate, whilst still allowing, due to its rapid setting and drying properties, ceramic, porcelain and natural stone tiles to be fitted from as little as 2.5 hours.

LevelFlex+ DEPTH dries with an excellent surface finish and can be used on a large variety of substrates, including sand & cement screeds, concrete, timber, flooring grade asphalt/bitumen and existing ceramic, porcelain and natural stone tiles. LevelFlex+ DEPTH can be used on underfloor heated screeds, retro fit overlay underfloor heating systems and is ideal for encapsulating electric underfloor heating elements.

AREAS OF USE:

- ✓ Floors
- ✓ Internal
- ✓ Dry Areas
- ✓ Wet Areas
- ✓ 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 installation commences

- ✓ Tile Backer Board Overlay
- ✓ T&G Timber Floorboards
- ✓ Steel
- ✓ Sand & Cement Screeds
- ✓ Flooring Grade Plywood Overlay
- ✓ Flooring Grade Asphalt & Bitumen
- ✓ Existing Vinyl Tiles
- ✓ Existing Ceramic, Porcelain & Natural Stone Tiles
- ✓ Epoxy DPM
- ✓ Concrete
- ✓ Calcium Sulphate Screeds

PREPARATION:

Before starting, all substrates must be clean, dry, sound and strong enough to support the weight of the compound and the final floor covering. Remove all dust, dirt, oil, grease and other contaminants that may affect adhesion.

When installing moisture sensitive floor coverings, the concrete or sand & cement screed should be confirmed dry by consistent moisture readings; <75% relative humidity (RH) or <0.5% residual moisture when tested in accordance with BS 5385. Where a structural damp proof membrane is not present or where rising damp and/or residual moisture results in moisture readings up to 98% RH, Tilemaster FAST One Coat DPM must be applied before or after the application of Tilemaster LevelFlex+ DEPTH. Surface laitance must be removed from concrete and sand & cement screed surfaces prior to application.

Substrates require priming prior to the application of Tilemaster LevelFlex+ DEPTH. Priming the substrate will minimise the risk of pinholes forming, allow for the best flow properties and will also prolong the working time of the product. Please refer to the detailed substrate priming information on pages 3 and 4 of this TDS.

Prior to levelling timber substrates ensure that timber boards are securely screwed down and firmly fixed. Where timber substrates are sufficiently rigid but uneven or worn, Tilemaster LevelFlex+ DEPTH can be used to smooth and level the timber substrate prior to over-boarding with a tile backer board. If following this process, allow Tilemaster LevelFlex+ DEPTH to cure before fitting the overlay boarding.

MIXING AND APPLICATION:

A 20kg bag of Tilemaster LevelFlex+ DEPTH requires 4.5 – 5.0 litres of water.

Add the pre-measured water to a clean bucket and slowly add the powder whilst mixing with an electric paddle. Mix until a smooth and lump free consistency is obtained. Do not add further water once mixed. **Exceeding 5.0 litres of water per 20kg will result in water bleed, extended drying times, a weakened mix and poor surface finish.**

N.B: Once mixed, Tilemaster LevelFlex+ DEPTH will remain workable in the bucket for 25 - 35 minutes at 23°C. Due to the rapid setting properties of Tilemaster LevelFlex+ DEPTH, it is important to apply the mixed product without delay.

Pour the compound onto the prepared surface and trowel to the required depth of between 2mm and 85mm. If the depth of compound applied allows, the use of a spiked roller is recommended immediately in order to remove entrapped air and smooth out flow lines. The setting time will then depend on atmospheric conditions/temperatures - it will be slowed by lower temperatures and accelerated by higher temperatures.

Clean tools immediately after use with clean water.

PUMP APPLICATIONS:

Tilemaster LevelFlex+ DEPTH is ideal for pump applications. Mix in accordance with the pump manufacturer's instructions and ensure that regular flow checks are carried out. Ensure the water content is correct and that there is no surface separation. Test samples of the product must be conducted to ensure the pump lines are able to send product through before the product starts to set.

SETTING AND COVERING:

In ideal conditions, LevelFlex+ DEPTH will be set to walk on after 2.5 hours. LevelFlex+ DEPTH must be left to dry before applying the final surface flooring. This is typically after 2.5 hours for ceramic, porcelain and natural stone tiles. Thicker applications may require a longer time to dry prior to applying floor coverings. If there is no airflow within site conditions, the drying time may be restricted.

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SUBSTRATE PREPARATION GUIDE:

Preparation of all substrates is crucial to the success and longevity of all 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 compound as well as all finished floor coverings and fixing materials.

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 temperature for a further 3 days before being allowed to cool to room temperature. 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.

When applying Tilemaster LevelFlex+ DEPTH onto an existing, fully cured and dry heated screed, where the underfloor heating has been previously commissioned and used, you must switch the heating off 48 hours prior to application to allow the substrate to cool sufficiently.

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 finished floor covering 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.

Underfloor Heating (Electric): When tiling, or fitting a resilient floor covering onto a new electric underfloor system, the cables should be encapsulated into Tilemaster LevelFlex+ DEPTH. Ensure that the layer of Tilemaster LevelFlex+ DEPTH has the required thickness to meet the requirements of the specific floor covering being installed.

N.B. When installing resilient flooring above an electric underfloor heating element, Tilemaster LevelFlex+ DEPTH must be applied to allow for 10mm of Tilemaster LevelFlex+ DEPTH above the element.

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.

Underfloor Heating Systems: Please contact Tilemaster Technical Support on 01772 456831 to determine suitability for specific systems.

Tile Backer Board Overlay: Tile backer boards must 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 compound as well as all finished floor coverings and fixing materials. 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 have any smoothing and levelling compound directly applied to them and must be over-boarded with an appropriate board prior to applying the compound.

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.

Class 3 Flooring Grade Plywood: 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 100mm centres around the perimeter of the sheet and at 150mm centres elsewhere, staggering the board joints of all plywood sheets. Ensure the surface is clean, dry and free of any contaminants. Prime the surface of the plywood with one coat of Tilemaster Primeplus, diluted 3 parts water to 1 part Tilemaster Primeplus, and allow to dry.

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.

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Existing Ceramic, Porcelain & Natural Stone Tiles: Ensure that the substrate is rigid and can take the additional weight of the new floor covering and preparation 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.

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 completely removed 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 LevelFlex+ DEPTH 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.

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Screed classification	CT-C30-F7 to BS EN 13813; 2002
Working time @ 23°C	25 – 35 minutes
Time to foot traffic @ 20°C	2.5 hours
Application thickness	2mm – 85mm
Compressive strength N/mm ² (BS EN 13892-2)	1 day > 10.0 7 day > 15.0 28 day > 25.0
Flexural strength N/mm ² (BS EN 13892-2)	1 day > 3.0 7 day > 5.0 28 day > 7.0
Coverage	20kg will cover 4.5m ² at 3mm thickness
Flow properties using 30mm x 50mm flow ring	135mm – 145mm
Minimum application temperature	5°C
Shelf life	Stored correctly this product has a shelf life of 6 months
Colour	Grey
Pack size	20kg
Note	All work must be carried out in accordance with British Standard Code of Practice.

HEALTH AND SAFETY

Tilemaster LevelFlex+ DEPTH contains cement. 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 Technical Data 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.

 20 DoP 068	
Tilemaster Adhesives Ltd Kerakoll Group Tomlinson Road Leyland PR25 2DY United Kingdom	
EN 13813:2002 CT-C30-F7 Fast drying cement based self – levelling compound for use in interior locations	
Reaction to fire	NPD
Release of corrosive substances	CT
Water permeability	NPD
Water vapour permeability	NPD
Compressive strength	C30
Flexural strength	F7
Wear resistance	NPD
Sound insulation	NPD
Sound absorption	NPD
Thermal resistance	NPD
Chemical resistance	NPD