

# DEEP FILL FLOOR LEVELLER



# PRODUCT SELECTION GUIDE

# SUITABLE SURFACES & SUBSTRATES:

- ✓ Concrete subfloors
  - Tamped or pan floated concrete
- ✓ Sand/cement screeds
- Existing smoothing underlayments
- Terrazzo/granolithic ceramic tiles
- ✓ Anhydrite/calcium sulphate/gypsum based screeds
- Plywood/tile backer board
- ✓ Warm water underfloor heating\*
- Radiant electrical underfloor heating system\*
- × Vinyl tiles

 $\checkmark$ 

- ✓ UltraFloor DPM IT
- × Pre-smoothing prior to DPM or MVS

**UltraTrade Deep Fill One** is a single part, high strength, rapid drying and curing cementitious smoothing and levelling compound. The product's formulation incorporates a blend of specially graded fillers, cements and polymers with a rapid curing profile to enable early fixing of tiles even at thicker depth applications. It provides a strong, sound, even base which creates an ideal substrate for the fixing of small or large tiles, allowing the tiling process to begin after only 8 hours. Its fast set time (in good ambient conditions) enables light foot traffic in 3 hours.

# SURFACE PREPARATION

**Assessment:** All subfloors should be protected from moisture from the subground by use of a base damp proof membrane (DPM) (please check older properties, which may not have a base DPM and consult CTD for advice). Assess moisture levels in accordance with BS 8203, to achieve a hygrometer reading of 75%RH or less. Where this is not attained a surface DPM should be used – the selection of which will be subject to the subfloor (please seek advice from CTD). Any surface laitance, adhesive residue, paints, weak smoothing underlayments and any other materials which will hinder **UltraTrade Deep Fill One's** bond with the subfloor should be mechanically removed. The subfloor should be clean, dry and sound. The area should also be dust free prior to any primer application.

### PRIMING

All ratios are water:primer. Subfloors should always be primed. Primer should be allowed to dry prior to the application of **UltraTrade Deep Fill One**. Drying times will be based on ambient conditions - bear in mind that cold or damp/humid conditions, or poor airflow, can extend drying time (please see UltraTrade Primer datasheet for further information).

**Porous Substrates:** The absorbency of floors/screeds can vary significantly, this is to be assessed by personnel on site. Apply a coat of primer diluted 3 parts water to 1 part primer. Allow to completely dry (usually 1-2 hours). Apply a second coat diluted 1 part water to 1 part primer and allow to completely dry before applying further materials. **Note:** on very absorbent substrates a third coat may be required diluted 1 part water to 1 part primer.

**Non-porous Substrates:** Including very dense substrates/subfloors. UltraTrade Primer should be applied neat, in a thin uniform coating and allowed to dry fully. **SUBFLOOR PREPARATION: WHICH SUBSTRATE?** 

**Concrete Subfloors:** Power floated concrete should be treated as non-porous. Mechanically abrade (shotblast or scarify) to remove surface hardeners and expose the cement/aggregate. Apply UltraTrade Primer neat in a thin uniform coating, allowing it to dry fully (usually 1-2 hours).

Tamped or Pan Floated Concrete: Should be treated as porous, and any laitance or weak material should be mechanically removed to ensure a sound, dry and dust-free surface. Apply UltraTrade Primer diluted 3:1 with clean water and allow to dry fully (usually 1-2 hours).

Sand/Cement Screeds: These should be strong enough for an application of UltraTrade Deep Fill One. Weak, friable or damaged screed should be uplifted and repaired. Apply UltraTrade Primer diluted 3:1 with clean water and allow to dry fully (usually 1-2 hours). Two-coat application may be required for very absorbent screeds.

**Existing Smoothing Underlayments: UltraTrade Deep Fill One** can be used over most intact cementitious cement underlayments. Remove adhesive residues and treat as an absorbent floor. Apply UltraTrade Primer diluted 3:1 with clean water and allow to dry fully (1-2 hours). Apply a second coat diluted 1:1 with clean water allowing it to dry to a clear film (1-2 hours). **Note:** application is only suitable on subfloors that are in equivalent strength to **UltraTrade Deep Fill One**.

Terrazzo/Granolithic Ceramic Tiles: These must be securely bonded, and any surface treatment should be mechanically removed. A good mechanical key should be ensured by abrading the surface using a Surface Texturing & Grinding (STG) machine (a diamond disc is recommended). These subfloors can be treated as low porosity and primed using UltraTrade Primer neat.

**Calcium Sulphate/Anhydrite/Hemihydrate Screeds:** See relevant manufacturer's technical datasheet. A barrier primer application is required. If moisture is above 75%RH we do not recommend using a surface DPM. These screeds often incorporate warm water underfloor heating systems which can be used, along with dehumidifiers, to speed up the drying process. Screed manufacturers normally suggest this can be conducted after 7 days minimum curing. Mechanically remove any laitance or weak material to leave a clean, dry and dust-free surface. We recommend an STG machine with suitable mesh grinding disc of 60-100 grade grit. Apply UltraTrade Primer diluted 3:1 with clean water and allow to fully dry overnight. Apply a second coat diluted 1:1 with clean water allowing it to dry to a clear film (usually 1-2 hours).

**Plywood/Tile Backer Board:** Plywood must be of flooring grade and mechanically fixed to a sound strong base. **UltraTrade Deep Fill One** is only recommended for use with plywood of 15mm thickness and greater. Tile backer boards of 6mm thickness. Plywood must be sealed on the underside and along all edges to ensure moisture absorption from beneath is kept minimal. For thinner flooring grade plywood subfloors contact CTD's technical department. Plywood and tile backer board absorbency differs depending on the nature of the surface. Normally a diluted coat of UltraTrade Primer (3:1 with clean water) is recommended. For dense surfaces of very low absorbency apply UltraTrade Primer neat in a thin uniform coating. Allow primer coats to fully dry.

Warm Water Underfloor Heating (UFH): Systems must have been fully commissioned and brought up to their maximum temperature, and ideally switched off 48 hours before application. In the absence of other heat sources, the UFH may be set to 'cutback' position to achieve an air temperature of 15°C. Any expansion or movement joints must be carried through to the floor covering surface.

\*Radiant Electrical Underfloor Heating Systems: UltraTrade Deep Fill One may be used where electrical UFH is fitted directly over cementitious or calcium sulphate subfloors. Priming should be as per the substrate. In all cases UltraTrade Deep Fill One must be applied at a minimum thickness of 5mm above the cables. For further guidance please contact the underfloor heating manufacturer. For any other scenarios please call UltraTrade Technical Services for advice.

# **MIXING & APPLICATION**

Mixing ratios of powder and water should be controlled to ensure a free flowing material suitable for 3-60mm application. Do not use excess water as this will affect the product performance and finish. For trowel/hand application mix in a clean bucket using clean cold water, as warm water will greatly reduce the product's working time and may result in shrinkage. Pour 3.4 litres of water into an oversized bucket (20+ litres), and then gradually add the powder whilst mixing continually with an electric drill with power whisk. When all powder is added mix for a further 2 minutes, keeping the whisk below the surface (to minimise air entrapment) until a lump free creamy material is attained.

Once mixed, the product can be applied by pouring onto the floor and spreading with a smooth edge steel trowel. Plan to begin at the furthest point working back towards the point of entry to avoid walking through wet product. Maintain a wet edge to ensure adjacent mixes blend in correctly. For large areas or deep sections it may be beneficial to batten off areas into sections. Keep free from floor traffic and other trades whilst curing.

#### CURING & DRYING

All curing and drying times are based on good site conditions, air temperature of  $20^{\circ}$ C, air humidity of maximum 75% and good ventilation. Cold, humid or damp sites, or those with poor airflow, will prolong curing and drying times, so make adequate allowances for such. Avoid strong drafts and direct sunlight during curing which can 'force dry' the product and result in excess tension and cracking. **UltraTrade Deep Fill One** is ready to receive light foot traffic after 3 hours. Once this leveller has been installed it must be ensured that it is fully dry before continuing the tiling process, to include priming and adhesive applications.

## **TECHNICAL DATA**

Applied Cover Thickness (appr	rage Per Unit Consumption Per rox.) 10m <sup>2</sup> Area
COVERAGE	
Flexural Strength (N/mm <sup>2</sup>	<sup>2</sup> ): 28 Day: 6 (to BS EN 13892-2)
Compressive Strength (N/	/mm²): 28 Days: 35.0 (to BS EN 13892-2)
Commence the tiling proce	ess: *8 Hours (3mm application) *24 Hours (5-15mm application) *48 Hours (15-30mm application) *72 Hours (30-50mm application) For depths above 50mm leave 7 days before commencing the tiling process. (*Depending on substrate porosity, nature of flooring and notes in Curing & Drying above.)
Walk on hardness time at	20°C: *3 Hours (3mm application)
Working time at 20°C:	*20-30 Minutes
Depth:	3-60mm
Classification:	CT-C35-F6
IECHNICAL DATA	

Applied Thickness		Coverage Per Unit (approx.)		Consumption Per 10m <sup>2</sup> Area	
►	3mm	4.0m <sup>2</sup>		2.5 bags	
►	5mm	2.4m <sup>2</sup>		4.2 bags	
	10mm	1.2m <sup>2</sup>		8.4 bags	
	15mm	0.8m <sup>2</sup>		12 bags	

## CLEANING

Tools should be thoroughly cleaned with water to remove excess material immediately after use and before the leveller sets. **STORAGE** 

This product must be stored in unopened bags, clear of the ground in dry conditions. Avoid frost. Ideal storage temperatures are between 5°C and 25°C.

#### SHELF LIFE

Under the above storage conditions this product has a shelf life of 8 months. High temperatures and high humidity will lead to a reduced shelf life.

#### **HEALTH & SAFETY**

Please ensure that appropriate PPE is used when preparing, mixing and applying products. Always wash hands before consuming food and make sure that materials are kept safely out of reach of children and animals. Please dispose of packaging and waste appropriately. A full Material Safety Data Sheet relating to this product is available from **myultratrade.com**.

#### QUALITY ASSURANCE

All products are manufactured in a plant whose quality management system is certified as being in conformity with BS EN ISO 9001. Ultra Trade products are guaranteed against defective materials and manufacture and will be replaced or money refunded if the goods do not comply with our promotional literature. We cannot however accept responsibility arising from the application or use of our products because we have no direct or continuous control over where and how our products are used. All Ultra Trade products are sold subject to our terms and conditions of sales, copies of which may be obtained upon request.

Please note that this product uses natural aggregates and other materials that may marginally vary in colour. This does not affect the consistency or characteristics of the product.



Manufactured by

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