



Level



RENOVATE

SEMI-RAPID, FIBRE REINFORCED
SINGLE-PART SMOOTHING UNDERLAYMENT

Ideal for refurbishment of existing floors

Classification: CT-C25-F5 AR0.5

TECHNICAL DATASHEET

- For internal and external use
- Can be used as a light duty wearing course
- Foot traffic in as little as 2-2.5 hours
- Ready to receive floor coverings after 4 hours
- Use over most strong and stable subfloors
- Fibre reinforced with flexible properties
- UFH compatible
- Low odour
- Protein free



INFORMATION

UltraFloor Level IT Renovate is a single part, fibre reinforced smoothing underlayment. The product's unique formulation consists of a powered blend of cements, graded fillers and additives. UltraFloor Level IT Renovate is suitable for the refurbishment of existing internal and external floors and is suitable for use on both commercial and domestic applications. It has excellent flow properties making it ideal for a wide range of flooring substrates. It is ready to receive floor coverings after 4 hours or can be left as the final wear surface.

USE AS INTERNAL LEVELLER

Specially designed for use over a wide variety of subfloors including: strong, stable and prepared flooring substrates such as concrete, sand & cement, cementitious tile backer boards, abraded ceramic and terrazzo tiles, calcium sulphate/anhydrite/hemihydrate screeds, existing cementitious underlayments, damp proof membranes and surface electrical radiant heating systems. It is also suitable for timber floors that are firmly bonded, with no movement, such as plywood and chipboard panels.

Its protein free formulation means that it can be used in biologically sensitive areas.

UltraFloor Level IT Renovate can be used with underfloor heating systems but depth of the product should be considered to maintain heating efficiency.

PRIMING

UltraFloor recommend that subfloors should be primed prior to the application of UltraFloor Level IT Renovate.

SUBFLOOR PREPARATION

All surfaces must be dry and in a sound and stable condition free from contaminants that may prevent adhesion such as dust, oils, grease, surface laitance, water soluble adhesive residues and weak smoothing underlayments etc. Smooth dense surfaces must be roughened by mechanical scabbling to enhance the key. Subfloors should be tested in accordance with BS8203 to ensure a moisture reading of less than 75% RH should be achieved. Where this has not been attained or where there is uncertainty that the subfloor design incorporates a DPC then UltraFloor DPM IT or UltraFloor Suppress IT must be applied (see relevant UltraFloor product technical datasheet).

UltraFloor recommend consultation with subfloor preparation equipment suppliers to ensure correct equipment for the substrates is selected. All substrates must be above a minimum temperature of 5°C and rising before, during and after application of the primer to ensure film forming and bonding is achieved.

Absorbent Subfloors (concrete, sand & cement and existing smoothing underlayments):

Prime with UltraFloor Prime IT Multi-surface Primer (MSP) typically diluted 3 parts water, 1 part primer and allow to fully dry. Apply a second coat diluted 1:1 with clean water allowing it to dry to a pink film (1-2 hours). On highly porous substrates a third coat may be required diluted at 1:1 and allow to fully dry.

NOTE: To ensure a pinhole free surface is attained priming can be carried out using UltraFloor Prime IT MSP. Specific priming requirements are needed for calcium sulphate/anhydrite/hemihydrate screeds (see datasheet Substrate section - Calcium Sulphate/Anhydrite/Hemihydrate Screeds).

Non-absorbent Subfloors (power floated concrete, epoxy resin and damp proof membranes): Priming with UltraFloor Prime IT MSP is required when applying UltraFloor Level IT Renovate onto non-absorbent or dense substrates. Apply one coat neat and allow to fully dry.

MIXING

Mixing ratios of powder and water should be controlled to ensure a free flowing material suitable for 3-40mm 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 4.5 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.

APPLICATION

Pour onto the floor and spread with a smooth edge steel trowel. UltraFloor Level IT Renovate has exceptional flow characteristics, a spiked roller may be used to further improve the finish particularly between adjacent units of product. Only spike roll whilst the product is still in its fluid state (immediately due to the limited workability and rapid setting nature).

SUBSTRATES

Power Floated Concrete: Should be treated as non-porous. Mechanically abrade (shotblast or scarify) to remove surface hardeners and expose the cement/aggregate. Apply UltraFloor Prime IT MSP neat in a thin uniform coating, allowing it to dry fully (usually 1-2 hours).

Tamped or Pan Floated Concrete: These 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 UltraFloor Prime IT MSP diluted 3:1 with clean water and allow to dry fully



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(usually 1-2 hours). Apply a second coat diluted 1:1 with clean water allowing it to dry to a pink film (1-2 hours).

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

Existing Smoothing Underlayments: UltraFloor Level IT Renovate can be used over most intact cementitious cement underlayments. Remove adhesive residues and treat as an absorbent floor. Apply UltraFloor Prime IT MSP 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 pink film (1-2 hours).

NOTE: Application is only suitable on subfloors that are in equivalent strength to UltraFloor Level IT Renovate.

Chipboard Panels: Chipboard should be of flooring grade and of suitable strength for the application to prevent deflection. The chipboard should be mechanically fixed with screws into the floor joists that are a maximum distance of 300mm centres. If this cannot be achieved then extra strengthening will be required, in most cases over boarding with plywood is the easiest option. The chipboard panels should be thoroughly cleaned and free of any surface coating or wood treatment. Prime using a single neat coat of UltraFloor Prime IT MSP.

Calcium Sulphate/Anhydrite/Hemihydrate Screeds: Mechanically remove any laitance and provide a sound, clean, dry and dust-free surface. The relative humidity within the subfloor must read below 75% RH prior to the application of a barrier primer (damp proof membranes or moisture vapour suppressants are not recommended). These types of screeds often incorporate warm water underfloor heating systems (see relevant manufacturers' technical datasheet) which can be used, along with dehumidifiers, to speed up the drying process. Manufacturers normally suggest this can be conducted after 7 days minimum curing. Apply UltraFloor Prime IT MSP 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 pink film (usually 1-2 hours).

Pre-smoothing: UltraFloor Level IT Renovate can be used to on cementitious subfloors with residual moisture >75%RH to pre-smooth prior to applying an UltraFloor epoxy DPM. Prepare the subfloor to leave a lightly textured dust free surface. Either prime with UltraFloor Prime IT MSP diluted 3:1 with clean water and allow to fully dry or lightly dampen with clean water, allowing the surface to matt off. This will reduce pinholing.

NOTE: Pre-smoothing of subfloors where there is an absence of a base DPM can be carried out provided there is no risk of hydrostatic pressure and all previous materials have been removed to leave the cementitious base. If in any doubt always apply the DPM directly to the original subfloor.

Surface DPM and MVS: These are considered as non-absorbent substrates. Applications should be carried out within 12 hours of Ultra Floor DPM IT and/or UltraFloor Suppress IT application (see relevant UltraFloor product technical datasheets).

Warm Water Underfloor Heating Systems (UFH) for solid floors only: Where UFH systems are incorporated, they 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 finished floor surface.

USE AS EXTERNAL LEVELLER

Level IT Renovate is suitable for levelling and smoothing, balconies, patios, domestic driveways, garages, walkways, other concrete surfaces exposed to normal foot traffic, and for use under artificial turf.

It is not suitable for use on glass reinforced plastic, macadam and asphalt sub floors. It is not

recommended for resin finish overlays. Level IT Renovate can be left as a wearing surface, if applying a bonded covering like tiles, this should be carried out within 48 hours to avoid surface contamination.

SUBFLOOR PREPARATION

The substrate must be suitable for the intended use and be at least 30N/mm² compressive strength. New substrates must have been cured for at least 28 days. All surfaces must be surface dry and in a sound and stable condition free from contaminants that may prevent adhesion such as dust, oils, grease, surface laitance and curing agents etc. Smooth dense surfaces must be roughened by mechanical scabbling to enhance the key. All substrates must be primed with an Instarmac primer diluted 3 parts water, 1 part primer and allow to fully dry.

APPLICATION

Level IT Renovate can be pumped or trowel applied. The recommended thickness range for external use is 5mm-20mm.

PRECAUTIONS

Level IT Renovate must be protected from direct sunlight and excessive wind/draughts during application and setting period. The air and ground temperature must be above 5°C throughout the application and curing period. The product should ideally be covered with final finishes within 48 hours. Do not apply in rain or when rain is forecast. Protect from frost.

TECHNICAL DATA	
Specification	BS EN 13813:2002
Screed Classification	CT-C25-F5 AR0.5
Working time at 20°C	20-30 mins
Walk on hardness time at 20°C	2-2.5 hours
Ready to receive floor coverings	4 hours
Compressive Strength (N/mm ²): (to BS EN 13892-2)	1 Day: 14 7 Days: 15 28 Days: 25
Flexural Strength (N/mm ²): (to BS EN 13892-2)	1 Day: 3 7 Days: 4 28 Days: 5
Packaging:	20kg bag

References to BS EN13813:2002 confirms the minimum compressive and flexural strengths that the product will attain when tested to the standard.

CURING AND DRYING

All curing and drying times are based on good site conditions i.e. an air temperature of 20°C, air humidity of 65% RH and good ventilation. Sites that are cold, humid or damp or in areas where the airflow is poor, will prolong drying and curing times, so allowances should be made accordingly. Applications to non-absorbent substrates and at thicker application depths will take longer to dry.

NOTE: Avoid strong drafts and direct sunlight during curing. UltraFloor Level IT Renovate is ready to receive light foot traffic normally after 2-2.5 hours based on a 3mm thick application and floor coverings after 4 hours.





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COVERAGE RATES

Applied Thickness	Coverage Per Unit	Consumption Per 100m ² Area
3mm	5.0m ²	20 bags
5mm	2.5m ²	40 bags
12mm	1.1m ²	90 bags

Coverage is for guidance only based on a smooth, non-absorbent subfloor. Substrate texture and absorbency can affect consumption variations. As with all raw materials, colour variation may occur. Please note that this does not affect the consistency or characteristics of the product.

CLEANING

Tools should be thoroughly cleaned in water to remove excess materials immediately after use.

STORAGE

Store in a dry place at temperatures between 5°C and 30°C.

SHELF LIFE

If stored correctly and used within 8 months of the date shown on the bag.

SITE CONDITIONS

The drying characteristics of cementitious smoothing underlayments are directly influenced by ambient air and floor temperatures. Cement within the smoothing underlayment cures through a process of hydration using moisture. Extreme site conditions can affect this process i.e. below 5°C and above 30°C.

Ideal ambient air and floor temperatures for application are between 10°C and 22°C. These temperatures should be maintained throughout application and curing periods. Outside of these temperatures consideration should be given to the following guidelines for good practice. Floor temperatures will be slower to respond to ambient air temperature so should be considered in advance.

High humidity and low temperature prolongs evaporation of moisture from the freshly applied smoothing underlayment and therefore extends drying times. This may ultimately delay installation of floor coverings. In such conditions planned heating (not gas heating) may be required before, during and after application of the product in order to promote ideal site conditions. Heat should be directed into the air not direct to the floor creating hot spots. Good ventilation without direct drafts will also assist removal of moisture in the air from the building. Failure to adopt such practices in such adverse site conditions may result in damp patches, slow drying and potential surface bleed within the curing smoothing underlayment.

Low humidity and high temperature conditions will speed up drying by fast removal of moisture from freshly applied smoothing underlayment. Such conditions may cause rapid loss of moisture, required for the curing process, leading to irregular structure and strength build up. Such tensions within the drying smoothing underlayment could leave hairline surface defects. Under such conditions, smoothing underlayments should be protected from direct sunlight and drafts across its surface. Good air flow within the build without causing drafts is essential to reduce high temperature build up.

HEALTH, SAFETY AND ENVIRONMENTAL

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 responsibly and in accordance with local authority requirements. A full material safety data sheet relating to this product is available from instarmac.co.uk.

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QUALITY ASSURANCE

All products are manufactured in a plant whose quality management system is certified / registered as being in conformity with BS EN ISO 9001, ISO 14001 and ISO 45001. Our 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 projects are used. All products are sold subject to our conditions of sales, copies of which may be obtained upon request.

