



Level *it* BASE

HEAVY DUTY
DEEP FILL SMOOTHING UNDERLAYMENT

For building depth of up to 50mm

Classification: CT-C25-F6

TECHNICAL DATASHEET

- Builds depth of up to 50mm
- Pump or trowel applied
- Suitable for underfloor heating systems
- Contains recycled material
- Moisture tolerant



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INFORMATION

UltraFloor Level IT BASE is a rapid setting and hardening, high strength, single part, cementitious smoothing underlayment incorporating recycled raw materials. Level IT BASE may be mixed up and applied as single units and is especially suited to larger projects where it is ideal for pumping applications and can be applied up to depths of 50mm. Level IT BASE is suitable for use in industrial, commercial and domestic flooring installations.

USES

When mixed with clean cold water, Level IT BASE is a product that can be trowel or pump applied, to smooth and level, sound and strong internal subfloors prior to applications of Level IT TOP (see relevant technical datasheet - sheet) where a wearing surface is required, and prior to applications of Ultra Floor smoothing underlayments when a finished decorative floor covering is being installed. In some applications Level IT BASE can be used as the finished floor prior to the application of a high build resin coating (consult Ultra Floor technical department).

It is a protein free formulation so maybe used in biologically sensitive areas and can be applied to most cementitious subfloors including those incorporating fully commissioned warm water underfloor heating systems. It may also be used over fully cured and dry calcium sulphate screeds.

Level IT BASE should be applied at a minimum application thickness of 5mm and can be applied up to a maximum of 50mm.

SUBFLOOR PREPARATION: ASSESSMENT

Level IT BASE has a moisture tolerant formulation and can be applied to cementitious subfloors where there is an absence of a base DPM provided there is no risk of hydrostatic pressure from the subground. If systems incorporating Level IT BASE are to receive resin coatings or floor coverings then the product must be protected from rising moisture including residual construction moisture by the application of Ultra Floor DPM IT Rapid Curing Primer Membrane to the subfloor (see relevant technical datasheet).

Any surface laitance, adhesive residue, paints, existing smoothing underlayments and any other materials which will hinder Level IT BASE's bond with the subfloor should be mechanically removed. The subfloor should be clean, dry and sound. BS8204-3 recommends a minimum surface tensile strength of 0.8N/mm² for concrete bases to receive wearing or levelling screeds. For heavy duty locations or where a subsequent resin coating may be applied, the minimum surface tensile strength should be 1.5N/mm². The area should also be dust free prior to any primer application.

SUBFLOOR PREPARATION: PRIMING SUMMARY

Subfloors should always be primed prior to applications of Level IT BASE with Prime IT Multi-surface primer (MSP). This will enhance the application characteristics and improve the adhesion between Level IT BASE and the substrate.

Prime IT MSP applications should be in a thin uniform coating avoiding pooling and puddling of primer. The dry film should be a pink colour. All dilution ratios are water:primer.

Drying times are for guidance only and will be subject to subfloor absorbency, temperature, building humidity and airflow. Level IT Base applications must be made within 36 hours of primer curing.

SUBFLOOR PREPARATION: WHICH SUBSTRATE?

Level IT Base can be applied to strong sound cementitious substrates and also to fully cured, dry calcium

sulphate screeds. It can also be used in conjunction with Ultra Floor Level IT TOP where a finished wearing surface is required (see relevant technical datasheet).

NOTE: Where warm water UFH (Underfloor Heating) 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.

Concrete subfloors:

Power floated concrete: should be fully opened up to expose the cement/ aggregate matrix. This may be achieved by shotblasting or mechanically scarifying. Consult a subfloor preparation specialist for suitable equipment and methods.

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).

Tamped or pan floated concrete: should be treated as porous. 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 (1-2 hours). Apply a second coat diluted 1:1 with clean water allowing it to dry to a pink film (1-2 hours).

Screed subfloors:

Sand/Cement Screeds: These should be strong enough for an application of Level IT BASE (see subfloor assessment above). 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 (1-2 hours). Apply a second coat diluted 1:1 with clean water allowing it to dry to a pink film (1-2 hours).

Calcium Sulphate/Anhydrite/Hemihydrate Screeds: These screeds must be confirmed dry, below 75%RH when tested in accordance with BS 8203, and be strong enough (see subfloor assessment above). Level IT BASE applications **must not exceed 10mm**.

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 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).

Ultra Floor DPM IT Rapid Curing Primer Membrane: Where subfloors have significant moisture levels and/or resin coatings are to be applied it is recommended that the subfloor be treated to suppress moisture using UltraFloor DPM IT Primer Membrane (see relevant technical datasheet).

NOTE: For small domestic applications such as garage floors the DPM IT may be primed with Prime IT MSP applied neat in a thin uniform coating, and allow to dry.

For any other scenarios please call Ultra Floor Technical Services for advice.

LEVEL IT BASE APPLICATION

Conditions

Level IT BASE should not be applied on projects unless it can be guaranteed that subfloor and air temperatures



Level **BASE** HEAVY DUTY DEEP FILL SMOOTHING UNDERLAYMENT

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do not drop below 6°C during application and throughout curing (nominally 7 days minimum). The use of radiant heaters is recommended to attain ideal application temperatures. Do not use fuel burning space heaters.

Light ventilation is recommended, particularly in enclosed areas. Avoid strong draughts as this can cause localised rapid drying and may result in surface crazing.

Level IT BASE can be applied both by hand mixing of individual units or by continuous pumping. Do not use warm water as this will reduce the products working time and may result in shrinkage.

For hand mixing application: pour 4.25 litres of clean cold water into a clean oversized bucket (20+ Ltrs), and then gradually add the powder whilst mixing continually with an electric drill with power whisk. When all the powder is added mix for a further 2 mins, keeping the whisk below the surface (to minimise air entrapment), until a lump free creamy material is attained. The product can then be poured onto the floor and, using a smooth steel trowel, spread out to the desired application depth. When applying at thicker sections a long handled float or dapple bar is preferred. A spiked roller can be used whilst the product is still fluid to minimise air entrapment and "marry" wet edges together to give a uniform finish. The depth of spike must be a minimum of 30% longer than the application depth of product otherwise it will not be able to rotate in the product. This is particularly important in deeper applications (15mm+).

For pump application: follow pump manufacturer's recommended set up guidelines. Ensure the correct water ratio is used by carrying out a flow tube test at the beginning of the project and at regular intervals throughout (ideally once per pallet) to check that ideal flow is being maintained. We recommend the logging of flow test results, site conditions, batch numbers and pump equipment for future reference, a template for which is available from ultra-floor.co.uk.

When using an Ultra Floor flow tube of capacity 200ml then a flow rate of 250 to 280 mm is acceptable. When using other flow tubes we recommend that a single unit be mixed by hand as above and the flow rate of the mixed unit be assessed with the specific flow tube.

For large projects it is recommended that the area be sectioned off into manageable sized bays where a wet edge can be maintained throughout the pumping process.

JOINTS

All joints within the subfloor that are designed for movement MUST be followed through to the surface of the flooring system. It is recommended that subfloor joints should be marked out prior to applying Level IT BASE and re-established by disc cutting after 24 -48 hours.

It is also recommended that a movement joint be incorporated at all perimeters and at door threshold to ensure building movement does not result in the Level IT BASE cracking.

CURING AND DRYING

All curing and drying times are based on applications of Level IT BASE in good ambient conditions of 20°C, 65% air humidity 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.

Level IT BASE is ready to receive foot traffic after 2 to 3 hours and applications of Level IT TOP after 24 hours.

Level IT BASE is ready to receive floor finishes after 24 hours (on applications between 5 and 15mm), 48 hours (on applications between 15 and 30mm) and 72 hours (on applications between 30 and 50mm).

It is also recommended that the substrate be tested for moisture before applying floor finishes. Typically a moisture content of 5% or lower is required.

How much material?		
Applied Thickness	Coverage Per Unit	Consumption Per 100m ² Area
5mm	3.0m ²	33 bags
15mm	1.0m ²	100 bags
20mm	0.75m ²	133 bags
50mm	0.3m ²	333 bags

Coverage rates are based on 4.25 litre water addition and will vary according to the condition of the substrate. 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.

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TECHNICAL DATA	
Screed Classification	BS EN 13813:2002 CT-C25-F6
Application Thickness:	5-50mm
Working time at 20°C	30-40 mins
Walk on hardness time at 20°C	2-3 hours
Ready to receive floor coverings	24 hours (5-15mm) 48 hours (15-30mm) 72 hours (30-50mm)
Compressive Strength (N/mm ²): (to BS EN 13892-2)	1 Day: 15.5 7 Days: 21.4 28 Days: 25.5
Flexural Strength (N/mm ²): (to BS EN 13892-2)	1 Day: 3.5 7 Days: 5 28 Days: 6
Flow properties using a 200ml capacity Ultra Floor flow tube (48mm in diameter, 106mm height)	250-280mm
Packaging:	25kg bag

All figures above are based on tests carried out under quality controlled environments using Level IT BASE with the correct water ratios. Actual results attained will be subject to site conditions and allowances should be made accordingly.

CLEANING

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

STORAGE

Store in a dry place between 5-30°C. When stored correctly and used within 8 months of the date shown on the bag, the reducing agent activity will be maintained and the product will contain, when mixed with water, no more than 0.0002% (2 ppm) soluble Chromium (VI) of the total dry weight of the cement. Note: The use of this product after the end of the 8 month storage period may increase risk of an allergic reaction.

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 out of the reach of children and animals. Please dispose of packaging and waste appropriately. A full MSDS for all our products is available from ultra-floor.co.uk.

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.





Level *it* TWO HIGH FLOW

High Flow Two Component Smoothing Underlayment

Classification: CT-C25-F5

TECHNICAL DATASHEET

- Foot traffic in as little as 2.5 hours
- Ready to receive floor coverings after 8 hours
- Use over most common subfloors
- UFH compatible
- Low odour
- Protein free



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INFORMATION

UltraFloor Level IT Two is a mid-strength smoothing underlayment. A two-component system consisting of a powered blend of cements, graded fillers and additives, and a pre-gauged polymer liquid. UltraFloor Level IT Two is suitable for depths between 2-12mm.

USES

Specifically designed for use over a wide variety of subfloors including: concrete, sand & cement, calcium sulphate/anhydrite/hemihydrate screeds, existing cementitious underlayments, damp proof membranes and surface electrical radiant heating systems.

Decorative permeable floor coverings such as open backed carpets can be applied to the internal subfloors in as little as 8 hours after the application of UltraFloor Level IT Two. Impervious floor coverings such as sheet vinyl and tiles can be applied after 10 hours.

A moisture tolerant formulation makes it suitable for the pre-smoothing of floors prior to the application of surface damp proof membranes (DPM) and moisture vapour suppressants (MVS).

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

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 at a minimum temperature of 5°C before, during and after application of the primer to ensure film forming and bonding is achieved.

PRIMING

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

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 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 Two onto non-absorbent or dense substrates. Apply one coat neat and allow to fully dry.

MIXING

Shake the pre-gauged bottle of liquid prior to opening. Pour the entire contents of the liquid into an oversized bucket (20 litres or more capacity). Gradually add the powder whilst continually mixing using an electric drill fitted with a power whisk, suitable for use with cement materials. After completely adding the powder, continue mixing for a further 2 minutes, keeping the whisk below the surface of the product to minimise air entrainment, until a lump free creamy material is attained. UltraFloor Level IT Two should only be mixed as single units. Do not add further liquid or water.

APPLICATION

Pour onto the floor and spread with a smooth edge steel trowel. UltraFloor Level IT Two 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 (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 Two. 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.



Level *it* TWO

High Flow Two Component Smoothing Underlayment

Classification: CT-C25-F5

Existing Smoothing Underlayments: UltraFloor Level IT Two 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 Two.

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 Two can be used 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).

Radiant Electrical Underfloor Heating Systems: Cables must be secured to a sound strong mechanically fixed cement faced backer board. It may also be used where electrical underfloor heating is used over cementitious or calcium sulphate subfloors (see calcium sulphate screed section). In all cases UltraFloor Level IT Two must be applied at a thickness of 5mm above the cables for resilient, textile and timber applications and a minimum of 3mm for application of stone, ceramic or porcelain products.

Warm Water Underfloor Heating Systems (UFH): 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.

COVERAGE RATES		
Applied Thickness	Coverage Per Unit	Consumption Per 100m ² Area
2mm	6.0m ²	17 units
5mm	2.4m ²	42 units
10mm	1.2m ²	84 units
30mm	0.52m ²	192 units + 81 x 10kg aggregate

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 Two is ready to receive light foot traffic normally after 2.5 hours based on a 3mm thick application.

TECHNICAL DATA	
Specification	BS EN 13813:2002
Screed Classification	CT-C25-F5
Working time at 20°C	20-30 mins
Walk on hardness time at 20°C	2.5 hours
Ready to receive floor coverings (based on 3mm application)	8 hours
Compressive Strength (N/mm ²): (to BS EN 13892-2)	1 Day: 12.0 7 Days: 14.0 28 Days: 25.0
Flexural Strength (N/mm ²): (to BS EN 13892-2)	1 Day: 3.0 7 Days: 3.5 28 Days: 5.0
Packaging:	20kg bag/4 litre bottle

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

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

Liquid: To be kept out of direct sunlight and should be stored at temperatures above 5°C at all times. If allowed to freeze, UltraFloor cannot guarantee product performance.

SHELF LIFE

If stored correctly and used within 8 months of the date shown on the bag, the reducing agent activity will be maintained and this product will contain, when mixed with UltraFloor Level IT Two liquid, no more than 0.002% (2 ppm) soluble Chromium (VI) of the total dry weight of the cement. Shelf life in correctly sealed bags is 8 months. Please note: the use of this product after the end of the declared storage period may increase the risk of an allergic reaction.

Liquid: A minimum of 12 months when stored between 5°C and 30°C.

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.



Level *it* TWO HIGH FLOW

High Flow Two Component Smoothing Underlayment

Classification: CT-C25-F5

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 your 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 datasheet relating to this product is available from instarmac.co.uk.

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.

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Level



**SUPER
FLEX30**
RAPID SETTING & RAPID DRYING
FIBRE REINFORCED, FLEXIBLE SMOOTHING FINISHING COMPOUND

Ideal for screwed and fixed plywood floors where vibration and movement is likely

Classification: CT-C30-F7-AR.05

TECHNICAL DATASHEET

- Foot traffic in as little as 30 minutes
- Ready to receive bonded floor coverings after 1 hour
- Use over most common subfloors including flooring grade plywood and rigid steel
- Ready to receive resin finishes after 24 hours
- Fork lift traffic after 24 hours
- Use as a finished wear surface
- UFH compatible
- Low odour
- Protein free



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INFORMATION

UltraFloor Level IT Super Flex 30 is a rapid setting & rapid drying, fibre reinforced, flexible smoothing finishing compound. A two component system consisting of a powdered blend of high specification cements, micro fibres, graded fillers and additives, and a pre-gauged polymer liquid. UltraFloor Level IT Super Flex 30 is suitable for depths between 2-10mm.

USES

Specifically designed for use over a wide variety of subfloors including: concrete, sand & cement, calcium sulphate/anhydrite/hemihydrate screeds, flooring grade plywood, rigid steel, damp proof membranes, underfloor heating systems, and as a finished wear surface. Floor coverings can be applied to internal subfloors in as little as 1 hour (45 minutes when installing carpet) and resin finishes after 24 hours.

UltraFloor Level IT Super Flex 30 is not a moisture tolerant formulation, therefore it is not suitable for the pre-smoothing of subfloors prior to the application of a surface damp proof membrane (DPM) or a moisture vapour suppressant (MVS). It is also not suitable for applications where a damp proof course (DPC) is not present within the integrity of the building.

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

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 is 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 at a minimum temperature of 5°C before, during and after application of the primer to ensure film forming and bonding is achieved.

PRIMING

UltraFloor recommend that subfloors should be primed prior to the application of UltraFloor Level IT Super Flex 30.

Absorbent Subfloors (concrete, sand & cement, plywood etc): Prime with UltraFloor Prime IT Multi-surface Primer (MSP) apply first coat typically diluted 3 parts water, 1 part primer and allow to fully dry (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). On highly porous substrates a third coat may be required diluted at 1:1 and allow to fully dry.

Non-absorbent Subfloors (power floated concrete, epoxy resin, damp proof membranes, steel mezzanine decks and access panels): Priming with UltraFloor Prime IT MSP is required when applying UltraFloor Level IT Super Flex 30 onto non-absorbent or dense substrates. Apply one coat neat and allow to fully dry (usually 1-2 hours).

MIXING

Shake the pre-gauged bottle of liquid prior to opening. Pour the entire contents of the liquid into an oversized bucket (20 litres or more capacity). Gradually add the powder whilst continually mixing using an electric drill fitted with a power whisk, suitable for use with cement materials. After completely adding the powder, continue mixing for a further 2 minutes, keeping the whisk below the surface of the product to minimise air entrainment, until a lump free creamy material is attained. UltraFloor Level IT Super Flex 30 should only be mixed as single units. Do not add further liquid or water.

APPLICATION

Pour onto the floor and spread with a smooth edge steel trowel. UltraFloor Level IT Super Flex 30 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).

Existing Sand & Cement Screeds and Smoothing Compounds: These should be strong enough for an application of UltraFloor Level IT Super Flex 30. Weak, friable or damaged screed should be uplifted and repaired. UltraFloor Level IT Super Flex 30 can be used over most intact cementitious compounds. 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).



Level



**SUPER
FLEX30**
RAPID SETTING & RAPID DRYING
FINE REINFORCED, FLEXIBLE, SMOOTHING, TROWELLABLE COMPOUND

Ideal for screwed and fixed plywood floors where vibration and movement is likely

Classification: CT-C30-F7-AR.05

NOTE: Application is only suitable on subfloors that are in equivalent strength to UltraFloor Level IT Super Flex 30.

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).

Non-flexing Steel Floors (e.g. mezzanine decks): Mechanically abrade using a suitable mechanical machine (STG or shot blast) or a wire brush to give an abraded shiny corrosion free surface and remove all excess traces of metal.

Flooring Grade Plywood: UltraFloor Level IT Super Flex 30 is suitable for use over many plywood substrates provided the plywood is mechanically fixed and of suitable thickness. Normally Plywood that has been in-situ for many years will be stable and suitable for application. Newly installed flooring grade plywood (e.g. SP101) must be mechanically fixed to a sound strong base.

Patching prior to Plywood Overlays: Sound stable subfloors including T and G floor boards that are to be overlaid with flooring grade plywood may first be smoothed or patch filled with UltraFloor Level IT Bond.

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).

Radiant Electrical Underfloor Heating Systems: Cables must be secured to a sound strong mechanically fixed cement faced backer board. It may also be used where electrical underfloor heating is used over cementitious or calcium sulphate subfloors (see calcium sulphate screed section). In all cases UltraFloor Level IT Super Flex 30 must be applied at a thickness of 5mm above the cables for resilient, textile and timber applications and a minimum of 3mm for application of stone, ceramic or porcelain products.

Warm Water Underfloor Heating Systems (UFH): 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.

TECHNICAL DATA	
Specification	BS EN 13813:2002
Screed Classification	CT-C30-F7-AR.05
Working time at 20°C	10 mins
Walk on hardness time at 20°C	30 mins
Ready to receive floor coverings (based on 3mm application)	1 hour
Compressive Strength (N/mm ²): (to BS EN 13892-2)	1 Day: 16.81 7 Days: 22.26 28 Days: 32.45
Flexural Strength (N/mm ²): (to BS EN 13892-2)	1 Day: 4.47 7 Days: 5.90 28 Days: 7.68
Packaging:	20kg bag/4 litre bottle

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 Super Flex 30 is ready to receive light foot traffic normally after 30 minutes based on a 3mm thick application.

COVERAGE RATES

Applied Thickness	Coverage Per Unit	Consumption Per 100m ² Area
2mm	6.5m ²	16 units
5mm	2.6m ²	39 units
10mm	1.3m ²	77 units

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.

JOINTS

All joints within the subfloor that are designed for movement MUST be followed through to the surface of UltraFloor Level IT Super Flex 30. It is recommended that subfloor joints should be marked out prior to applying UltraFloor Level IT Super Flex 30 and re-established by disc cutting after 12 hours. It is also recommended that a movement joint also be incorporated at all perimeters, columns and at door threshold to ensure building movement does not result in the UltraFloor Level IT Super Flex 30 cracking.

SURFACE SEALER

While UltraFloor Level IT Super Flex 30 is a resilient material designed to accept vehicular traffic, it will need to be surface protected against staining from spillages such as oils, greases and any other penetrating or surface contaminant. Therefore, if aesthetics are of importance, then the cured product should be protected by the application of a surface floor sealer or coating suitable for use over cementitious floors.

CLEANING

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

STORAGE

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

Liquid: To be kept out of direct sunlight and should be stored at temperatures above 5°C at all times. If allowed to freeze, UltraFloor cannot guarantee product performance.

SHELF LIFE

If stored correctly and used within 8 months of the date shown on the bag, the reducing agent activity will be maintained and this product will contain, when mixed with UltraFloor Level IT Super Flex 30 liquid, no more than 0.002% (2 ppm) soluble Chromium (VI) of the total dry weight of the cement. Shelf life in correctly sealed bags is 8 months. Please note: the use of this product after the end of the declared storage period may increase the risk of an allergic reaction.

Liquid: A minimum of 12 months when stored between 5°C and 30°C.



Level



**SUPER
FLEX30**
RAPID SETTING & RAPID DRYING
FIBRE REINFORCED, FLEXIBLE SMOOTHING TENDING COMPOUND

Ideal for screwed and fixed plywood floors where vibration and movement is likely

Classification: CT-C30-F7-AR.05

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 your 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 datasheet relating to this product is available from instarmac.co.uk.

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.

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