ULTRA FLOOR

Level it 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

20KG & 5.0L

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).

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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).

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 overlayed 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/mm²): (to BS EN 13892-2)	1 Day: 16.81 7 Days: 22.26 28 Days: 32.45
Flexural Strength (N/mm²): (to BS EN 13892-2)	1 Day: 4.47 7 Days: 5.90 28 Days: 7.68
Packaging:	20kg bag/5 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 100m² Area
2mm	6.5m²	16 units
5mm	2.6m²	39 units
10mm	1.3m²	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.

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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 that 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.

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 IS0 9001, ISO 14001, and OHSAS 18001. 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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