

X-Tech LevelCem 24

Polymer modified self leveling cementitious underlay

Product Description

X-Tech LevelCem 24 is a self-leveling, single component cementitious underlay. The product has been specially formulated to produce a smooth crack free flat surface while being very easy to use.

Advantages

- Meets SCAQMD Rule 1113 & LEED VOC Limits
- Formaldehyde free
- 24 hour drying time
- Dimensionally stable.
- Single component product.
- Provides smooth surface to receive floor covering
- Installation can be carried out in a single application.
- Eliminates the need for sand and cement screeds.
- Suitable for use with all VCT and vinyl flooring

Uses

- Underlayment for floor coverings such as carpet, ceramic tiles, vinyl, parquet, linoleum etc.

Specification Compliance

SCAQMD Rule 1113
LEED NC2009 IEQ 4.2

Laboratory Test Data

Property	Typical Results
Compressive Strength ASTM C 109	25MPa at 28 days
Flexural Strength ASTM C 348	3MPa at 28 days

Application Properties

Application Temperature	5 to 35C
Max temperature of mixed material	30C
Application Thickness	up to 30mm dependant upon water content
Working Time	60 minutes at 25C
Traffic Time	24 hours at 25C

Water Content

5 to 5.5 liters per 25 kg bag.
(Lower the water content for application by trowel)

Theoretical Coverage

7m² per 25kg bag per 2mm thickness.
Yield 14L per bag.

Packaging

25 kg bags.

Volatile Organic Content

X-Tech LevelCem 24 = <10g/L
X-Tech LC Primer = <10g/L

Fire Performance

- UK Building Regulations (Document B): Class O
- BS 476 Part 7: Class 1 Surface Spread of Flame

Shelf Life

12 months in sealed biodegradable plastic bags.
6 months in paper bags.

Installation Guidelines

NCC X-Calibur provides detailed method statements on all its products for use in various applications. These must be referred to prior to starting work. The information below is a summary intended for guidance only.

Surface Preparation

Ensure the concrete substrate is clean and free from oil, grease, sealers, curing compounds, paints, polymer coatings, dust or other foreign (bond breaking) materials. Excess adhesive or laitance should be removed by light scabbling or mechanical captive shot blasting or grinding, followed by vacuuming to remove debris and dust. Large cracks or holes may be filled using equal parts of X-Tech LevelCem 24 and clean fine sand made up to a trowellable consistency. New concrete floors must be at least 14 days old.

Moisture Testing

The concrete slab should be tested for moisture with the Rapid RH system following the procedure in ASTM F2170. If the humidity reading is greater than 80% then conduct moisture vapor emission rate (MVER) testing using the procedure in ASTM F1869. (Both test kits are available for purchase from NCC X-Calibur). If the MVER is under 1.36Kg/93m²/24h (3lbs/1000ft²/24h) use X-Shield SF Primer. If the MVER is 1.36 to 2.27 Kg /93m²/24h (3 to 5 lbs/1000ft²/24h) use a single coat X-Shield MT Primer at 165 microns wft. If the MVER is 2.27 to 5.44 Kg/93m²/24h (5 to 12 lbs/1000ft²/24h) use two coats of

X-Shield MT Primer at 200 microns wft per coat. Contact NCC X-Calibur for guidance when MVER is greater than 5.44 Kg/93m²/24h (12lbs/1000ft²/24h)

Priming

Prime using X-Shield LC Primer applied at 8 to 10m²/per liter or until fully absorbed. The primer must be tacky before applying X-Tech LevelCem 24. Approximate drying time for the primer is 40 to 60 minutes at 20°C. Extremely porous substrates may require a second coat of primer to avoid pinholes or bubbles appearing in the finished surface. If a second coat is required allow the first coat to dry prior to application of consecutive coat. Do not allow dust film to cover the primed area prior to application of X-Tech LevelCem 24.

Mixing

Mixed with a forced action mixer or using a X-Roc Mixing Paddled fitted to a heavy-duty electric mixing drill capable of mixing between 400 to 600 rpm. Add the pre-measured water to a clean mixing bucket. Gradually add X-Tech LevelCem 24 into the water whilst continuously mixing the contents of the bucket. When the entire contents of the bag have been added to the water, mix for a further two minutes to produce a smooth homogenous consistency. Do NOT mix by hand. Do NOT add excess water. Discard any X-Tech LevelCem 24 that has hardened or stiffened in the mixing bucket. Further addition of water will NOT reconstitute a useable mixture.

Application

Pour the mixed material on the primed substrate and allow material to seek its own level. X-Tech LevelCem 24 may be spread with a steel trowel, pin screed or notched spreader. Keep the trowel slightly inclined to obtain desired thickness. When the material has been spread to the required thickness the surface should be rolled quickly with a spiked roller to release any air and produce a smooth level surface. To ensure uniform consistency and uniform continuous flow application of X-Tech LevelCem 24, it is advised that subsequent mixes are ready to enable continuous pouring until the area to be leveled is complete. Protect the finished areas from damage until X-Tech LevelCem 24 has set. For large areas X-Tech LevelCem 24 is best applied using a mechanical pumping system. For small areas and where falls are required X-Tech LevelCem 24 can be applied at a trowel consistency to a maximum thickness of 30mm.

Curing

No special curing is required, to avoid too rapid drying protect from direct sunlight or drying winds during actual application, and while curing for up to 24 hours. Cure with X-Roc BondCure if temperature is expected to be 35C or higher after application.

Clean Up

X-Tech LevelCem 24 should be removed from tools and equipment with clean water immediately after use.

Limitations

Do not mix by hand or add excess water.
Do not add water to the product after it has started to stiffen.
Any product that has not been placed whilst still fully fluid, should be discarded.
Protect from direct sunlight and wind.
Do not use in areas subject to moisture.
Do not use as a wearing surface.
If substrate moves or cracks, reflective cracking will occur in the product.
Perform a moisture check before applying coverings within 24 hours.
New concrete surfaces must be at least 14 days old prior to application.
Discolorations, minor surface imperfections and small bubbles do not effect the performance of the product as a self leveling underlayment.

Health and Safety

This product is for industrial use only by trained operatives. It is potentially hazardous if not used correctly. Please refer to the Material Safety Data Sheet (MSDS) prior to the purchase and use of this product. The MSDS can be obtained via our website www.ncc.com.eg

Authorized Technical Specialist

Please note that only NCC X-Calibur Authorized Technical Support Specialists ('ATSS') are permitted to change any of the information in this data sheet or to provide written recommendations concerning the use of this product. Visit www.ncc.com.eg for a full list of NCC X-Calibur ATSS.

Datasheet Validity

NCC X-Calibur makes modifications to its product datasheets on a continuous basis. Please check the datasheet update section on www.ncc.com.eg to ensure you have the latest version.

Warranties

NCC X-Calibur supplies products that comply with the properties shown on the current datasheets. In the unlikely event that products supplied are proved not to comply with these properties, then we will replace the non-compliant product or refund the purchase price. NCC X-Calibur does not warrant or guarantee the installation of the products as it does not have control over the installation or end use of the products. Any suspected defects must be reported to NCC X-Calibur in writing within five working days of being detected. NCC X-Calibur Construction Systems Inc. **makes no warranty as to merchantability or fitness for a particular purpose and this warranty is in lieu of all other warranties express or implied.** NCC X-Calibur Construction Systems Inc. shall not be liable for damages of any sort including remote or consequential damages, down time, or delay.



Quality Statement
All Products manufactured by NCC X-CALIBUR or imported from X-CALIBUR companies world-wide are manufactured to procedures certified to conform the quality, environment, systems described in the ISO 14001:2004 , ISO 9001:2000.



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