

CIKOcem SL238



(supersedes CIKOcem SL)

Cementitious Self-Levelling Floor Underlayment System

Description

CIKOcem SL238 is a self-levelling single component cement-based floor underlayment system recommended for level adjustment of concrete, screeds and other suitable substrates.

CIKOcem SL238 is a blend of specially selected cement, graded aggregate, polymers and other chemical additives resulting in a flowable self-levelling floor underlayment suitable for various subsequent finishes and floor coverings.

The cured product offers a smooth, seamless and levelled floor having thicknesses ranging from 3 mm up to 15 mm.

Properties & Advantages

- Single component cement-based system easy to handle and mix.
- Provides a smooth levelled floor applicable in thicknesses up to 15 mm.
- Pumpable having flowable consistency making it easy to apply.
- Fast setting, allowing foot traffic after 6 hours.
- Exhibits good adhesion to concrete, screeds and steel when primed as recommended.
- Compatible with several subsequent finishes including tiling, carpets, epoxies and other types of coatings.
- Shrinkage compensated.
- Early development of strength allowing early subsequent coating and floor coverings.

Applicable Standard

CIKOcem SL238 complies with EN 13813, Class CT, C35, F7.

Application Area & Uses

CIKOcem SL238 is suitable to be applied as a floor levelling screed and underlayment in both residential and commercial segments subjected to medium duty traffic service such as:

- Underlayment to installation of tiles, carpets, vinyl sheeting, epoxy coatings, linoleum and other flooring system.
- To reinstate and level concrete and screeds surfaces.

Physical properties

Form	Powder
Colour	Light grey in general
Fresh Density	2.2 ± 0.03 kg/L
Working time	20-25 minutes @ 35°C
	30-35 minutes @ 25°C
W/P ratio	0.16-0.17
Compressive Strength ASTM C109 Dry Curing (W/P=0.16)	≥14 N/mm ² (1 day)
	≥20 N/mm ² (3 days)
	≥25 N/mm ² (7 days) ≥35 N/mm ² (28 days)
Flexural Strength ASTM C 348 Dry Curing (W/P=0.16)	≥3 N/mm ² (1 day)
	≥4 N/mm ² (3 days)
	≥5 N/mm ² (7 days) ≥7 N/mm ² (28 days)
Pull of Bond Strength to primed concrete BS EN 1542/1015	≥1.5MPa (28days)
VOC EPA24	<10 g/L

Coverage

25 kg bag of CIKOcem SL238 mixed with 4-4.3 L of water will theoretically yield to 13-13.5 L of fresh materials which will cover 13-13.5 m² at 1 mm thickness.

Note: The coverage is subject to alteration as it depends on the floor condition, variation in level, surface finish and wastage.

Application Instructions

Surface preparation & conditions

The concrete surface should be fully cured achieving a minimum compressive strength and surface pull off strength of 25 N/mm² and 1.5 N/mm² respectively.

The concrete surface should be free from dust and loose particles. In case of traces of oil and grease, the surface shall be treated by acid etching, sand/grit blasting, or any other suitable mechanical means. Curing compounds and sealers, if present, must be removed by mechanical grinding using diamond disk. The final step in cleaning should be complete removal of all residues with a vacuum cleaner or water-pressure washing.

All cracks, holes, leakages and irregularities must be repaired and treated with the suitable concrete repair and injection materials from CIKO's wide range of products. Consult CIKO technical department for further support.

Concrete surfaces are to be mechanically prepared to remove laitance and achieve a flat surface, grit/shot blasting or surface profiling equipment are preferred.

The surface moisture content of concrete substrates must not exceed 4% and no risk of rising dampness.

Priming

CIKOpoxy Prim 11, CIKOpoxy Prim 14 or CIKOpoxy Prim 14-SF are recommended to prime and seal the surface. These primers are two components epoxy-based primers.

The base [Part-A] and hardener [Part-B] components should be mixed thoroughly using a heavy duty, adjustable speed drill paddle assembly for 2 to 3 minutes and ensure a homogenous mixture is obtained.

Properly mixed material should be applied using brush or high-quality epoxy roller over the dry and clean surface at a consumption rate ranging between 0.2 L/m² and 0.3 L/m².

Immediately and whilst wet broadcast CIKO ASG (0.5-1 mm) over the wet coat until rejection at a consumption rate ranging between of 1.5 and 3 kg/m². The coated surface should be left to dry for 12 up to 24 hours, depending on the prevailing ambient conditions

Mixing

A 25 kg bag of CIKOcem SL238 requires only 4 L up to 4.3 L of potable water for mixing. Measure required amount of potable water for each batch mix and dispense into mixer or container. Gradually dispense CIKOcem SL238 into the mixer whilst it is in running mode. Mix at high speed for at least 3 minutes to achieve a homogenous, lump free and flowable mixture.

Limitations:

- At high ambient temperatures, it is recommended to use cold water for mixing to attain a mixture temperature below 25°C, therefore extending the workability.
- Continuous mixing and pouring are recommended, therefore enough manpower is required.
- If the mixed materials stiffen do not remix with water; the batch should be discarded.
- Do not exceed the recommended water content.

Placing

Remove excess of aggregate CIKO ASG and clean the surface well using a broom followed by industrial vacuum. Ensure that the surface is free of loose and unbonded aggregate or any bond breaking substances prior to pouring CIKOcem SL238

Pour the properly mixed CIKOcem SL238 within 2 minutes from mixing onto the primed surface using notched trowel, pin rake or squeegee maintaining the required thickness. Immediately run a spiked roller to release entrapped air, Lay abutting edges within 10 minutes to ensure a clean edge. Maintaining a wet edge is important in avoiding lines and ridges on the finished floor. Back roll across with a spiked roller to help settle and even out the finish to a uniform, smooth and seamless surface.

Limitations:

- Do not exceed a thickness of 15 mm in a single application.
- Ambient and substrate temperatures during application are between 5°C and 35°C.
- Do not apply the product over untreated cracks or movement joints.
- Do not apply the product in areas where water, moisture or capillary rising damp are likely to be in contact with the cured product.

Curing

No specific curing is required. Protect and cover with polyethylene the initially hardened CIKOcem SL238 for at least 24 hours from harsh condition such as direct sunlight, rain, running water, high variation of temperatures or wind.

Cleaning

Used tools must be well cleaned with water directly after usage.

Subsequent finishes

Allow CIKOcem SL238 to cure for at least 24 hours prior proceeding with any subsequent finishing materials.

The surface of CIKOcem SL238 may be mechanically smoothed using plastic coated disk or appropriate grit size of sanding paper.

Recommendations

Mock-ups and field test areas are required in order to validate performance related characteristics to ensure system performance as specified for the intended use, and to determine approval of flooring system including but not limited to

- Inherent surface variations.
- Compatibility of Subsequent finishes.

Job site variability must be confirmed and assured including but not limited to:

- Surface preparation and substrate condition
- Relative humidity
- Surface moisture content
- Dew point temperature
- Ambient and substrate temperature

CIKOcem SL238 is available for professional applicators only.

Legal Notice and Warranty

CIKO warrants this product to be free from manufacturing defects and to meet the technical properties stated in the current Technical Data Sheet, if used as directed within its shelf life. Satisfactory results depend not only on quality of product but also on many factors beyond our control. CIKO makes no other warranty or guarantee, express or implied, including warranties of merchantability or fitness for a particular purpose with respect to its product. The sole and exclusive remedy of purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is the replacement of product or refund of the purchase price, at the sole option of CIKO. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by purchaser. CIKO will not be responsible for any special incidental, consequential including lost profits or punitive damages of any kind. Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on CIKO's present knowledge and experience. However, CIKO assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. CIKO reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.

Packaging

CIKOcem SL238 is available in 25 kg moisture resistant bags.

Storage

CIKOcem SL238 should be stored under enclosed shaded area away from direct sunlight, rain or moisture at temperatures between 5°C and 35°C.

Shelf life

CIKOcem SL238 has a shelf life of 9 months if stored in accordance with CIKO instructions.

Health & safety

Use standard dust mask to avoid inhalation of dust. Powder when wet or moist can cause burns to skin and eyes which should be protected during use. If comes in contact with skin/eyes, flush with plenty of fresh water and seek medical advice.

Refer Material Safety Data Sheet for further details.

Technical Support

For further technical support, do not hesitate to contact CIKO team at any time as CIKO offers on and off-site services to end users, specifier and contractors.

More from CIKO Middle East

A wide range of construction chemical products are manufactured by CIKO Middle East which includes:

- Concrete admixtures and additives
- Waterproofing and damp proof coatings
- Surface treatments
- Flooring and toppings
- Grouts and anchors
- Tile adhesives and grout
- Concrete repair materials
- Adhesives and bonding agent
- Protective coating
- Joint Sealants and Moulding compounds
- Ancillaries

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All CIKO products are manufactured under a strict management system conforming to and in compliance with requirements of international standards of Quality, Environmental, occupational Health and Safety ISO 9001, ISO14001 and ISO45001.