

# CIKOcem SL

## Cementitious Self-Levelling Floor-Top and Underlayment System

### Description

CIKOcem SL is a self-levelling single component cement based floor topping and underlayment system recommended for concrete and other suitable substrates.

CIKOcem SL is a blend of specially selected cement, graded aggregate, polymer and other additives to provide a self-levelling topping on suitable substrates. It offers seamless floor having thickness from 3 mm to 15 mm.

### Properties

- Single component cement based system.
- Seamless floor having thickness up to 15 mm.
- Self-levelling consistency and easy to apply.
- Exhibits excellent adhesion to substrates.
- Fast laying, up to 500m<sup>2</sup> per day.
- High early strength for early turnaround
- Suitable on wide range of substrates such as wood, concrete, mortar and steel.

### Application area

CIKOcem SL as floor topping and underlayment system is suitable for,

- Underlayment to fix tiles, carpets, vinyl sheeting, epoxy flooring systems, linoleum and other flooring system.
- To reinstate old concrete floor.
- As a binder for terrazzo floor system.

### Applicable Standard

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

### Physical properties @ 25°C

Form	Single component powder system
Colour	Grey in general
Mixing ratio	Pre-weighed packs
W/P	0.18-0.19
Slump flow ASTM C1611-14	900mm
Initial Time of setting	35min
Final Time of setting	45min
Workability @ 25 °C	20-25 minutes
Compressive strength ASTM C109 (W/P=0.18)	3 days >18 MPa 7 days >25 MPa 28 days >35 MPa
Flexural Strength ASTM C 348 (W/P=0.18)	1 day >5 MPa 3 days >7 MPa 7 days >8 MPa
Bond strength to concrete	>1.5MPa @28days
VOC EPA24	<10g/l

*\*Note: Dry cure for compressive and flexural strengths.*

### Coverage

CIKOcem SL will have a consumption of 1.7 kg of Powder (2kg fresh) for 1m<sup>2</sup> with 1 mm thickness.

Note: The coverage depends on the floor condition and finish.

### Application instructions

#### Surface preparation

The concrete surface should be fully cured achieving a minimum compressive strength and pull off strength of 25 MPa and 1.5 MPa 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 or sand blasting. Curing compounds and sealers, if present, must be removed by mechanical means. The final step in cleaning should be complete removal of all residues with a vacuum cleaner or pressure washing.

All cracks and holes must be repaired with CIKO repair materials made to mortar consistency.

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

CIKOacid Etch should be used by experienced contractors for further surface etching only when all mechanical preparation are impracticable. Once etching is finished, salts from the reaction must be thoroughly pressure washed and allow the concrete to completely dry. Any undue residue will affect the bond strength.

#### **Application**

##### **Priming with CIKObond AC**

Wet the surface with clean water just before application of first coat of primer.

The cleaned surface must be sealed with CIKObond AC. Application should be carried out using brush or roller uniformly over the cleaned surface. Allow the first coat of primer to dry. Apply the second coat and wait until it becomes tacky then proceed with the application of CIKOcem SL to required thickness.

##### **Priming with CIKObond EPL**

For non porous and impervious surfaces, apply CIKObond EPL and whilst still tacky, spread CIKOASG (0.1-0.3MM) or CIKOASG (0.3-0.5 MM) at a rate of 2.5 to 3 kg per 1 m<sup>2</sup> depends on the final application thickness. Allow to fully dry for at least 12 to 24 hours. Remove excess of aggregate and clean well before the application of CIKOcem SL.

#### **Mixing**

CIKOcem SL is a ready to use material and require only 4.5 to 4.75 litres of potable water per 25 kg bag for mixing. Measure required amount of potable water for each batch mix and dispense into mixer. Slowly add CIKOcem SL powder into the mixer while the mixer is in running mode. Mix the compound for 3 minutes to get a homogenous and lump free material.

#### **Note:**

- In hot weather application, it is mandatory to use chilled water (<20°C for mixing to extend the open time of the mixed material).
- In hot weather, it is preferable to use upper limit of W/P to extend workability.
- Continuous mixing and pouring is recommended. (sufficient manpower is required)
- Pour CIKOcem SL within 2 minutes from mixing.

#### **Placing**

Spread the properly mixed materials over the primed surface using notched trowel or squeegee maintaining the required thickness. Immediately the topping should be spiked well using spike rollers to release entrapped air in the fresh topping so as to get a uniform, smooth and seamless surface.

Do not over roll. Apply at a thickness between 3 and 15 mm in one pass only.

Note: to avoid seam lines formation, the mixed batch of CIKOcem SL must be applied within 6 min of the previous one (best results are achieved when pouring and mixing is simultaneous and continuous process).

#### **Application as a terrazzo binder**

CIKOcem SL can be blended with 6 to 9 mm terrazzo aggregate at a rate of 2.0 to 2.2 kg per kg CIKOcem SL (for example in a free fall mixer). The mix must be compacted manually to ensure a uniform distribution of the aggregates. Alternatively, the aggregate can be applied as a loose mix with a small amount of a transparent binder to the substrate. After the binder has cured CIKOcem SL is poured onto the surface until all voids between the aggregates have been filled. The terrazzo floor can be ground with a diamond grinder. The fine grinding and polishing should be made the following day or later.

#### **Curing**

Curing for the finished is not required in normal condition. In case of harsh condition like direct sunlight, high temperature, flow of wind, etc; freshly hardened concrete to be covered with polyethylene sheet.

#### **Cleaning**

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

#### **Packaging**

CIKOcem SL is available in 25 kg bags.

#### **Shelf life**

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

## Storage

CIKOcem SL should be stored under enclosed shaded area between 2 °C and 35 °C

## Precautions

- Fresh CIKOcem SL to be protected from direct sunlight and wind until it is hard.
- CIKOcem SL is not recommended for external use or situation where water may come into direct contact with cured materials.
- If the mixed materials stiffen do not remix with water; the batch should be discarded.
- Do not exceed the recommended water content and only use cool potable water having a temperature <20°C.
- For thicknesses higher than 15 mm consult CIKO technical team
- Better to have the mixed material temperature <28°C
- The ambient temperature is between 5 – 35°C.
- The substrate temperature is between 5 – 35°C.

## 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.

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- Surface treatments
- Flooring and toppings
- Grouts and anchors
- Tile adhesives and grout
- Concrete repair materials
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- Joint Sealants and Moulding compounds
- Ancillaries

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