

# Kimitech ECA

Self-leveling three-component epoxy-cement system for resin floors and coatings



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## DESCRIPTION

Kimitech ECA is a three-component, self-leveling epoxy-cement system. It has high mechanical, scratch and wear resistance. It is made out of two-component Kimitech EC epoxy resin (part A + part B) and a dry mix of hydraulic binders and additives (Kimifill K14, part C).

It is suitable for pigmentation on site.

## USES

Self-leveling layer applied (colored with Kimifloor RAINBOW coloring pastes) on substrates previously primed with Kimicover FIX and pre-regularized with sealant smoothing.

The water in the screed can move inside it, concentrating punctually, through an osmotic process, in areas with higher salt contents than the surrounding ones

In the case of damp substrates (due to leaks of pipes, without a vapor barrier or subject to wide ascent phenomena, etc.) and characterized by the simultaneous presence of a high content of salts (for instance screeds on sea-front structures), with low original mechanical performance and/or that cannot be properly prepared, if a perfectly impermeable coating is made, any rising damp from the screed is blocked under it, and these accumulations of water determine counter pressures which can cause, even months later, swell full of water (even under pressure) able to concentrate:

- under the epoxy-fermentation system (in the case of an original mechanical inadequacy of the substrate or its improper cleaning or preparation);

- between the epoxy-cementation system and the thick coating above it (if the minimum application thicknesses of the epoxy-cementing system or in the operating phase are not taken, the proper measures are not taken to guarantee the optimal adhesion between the epoxy-cementation system and the further thick coatings).

In order to prevent the formation of osmotic bubbles, in the case of wet substrates characterized by the simultaneous presence of a high content of salts (for instance screeds on sea-front structures), with low original

mechanical performances and/or not properly prepared, it is advisable to avoid applying over thick Kimitech ECA waterproof coatings (such as, for instance, Kimitech HLA). Rather, it is advisable to complete the cycles by applying any colored paint and providing a final polyurethane protection.

## CERTIFICATIONS

It is CE marked as a protective coating according to 1504-2, principles of MC and IR intervention.



## APPLICATION

	Manual application		Workability time at 25°C: 35 mins; First hardening time at 25°C: 2 h; Complete hardening time: 7 days
	Mechanical device application		
	Thickness per coat: 1-1,5mm for horizontal application		

Pay attention to the preparation of the substrates: the existing ceramic coverings must be checked, cleaned and mechanically prepared in order to reach a healthy and adherent substrate.

In case of poor adhesion to the substrate, they must be removed.

Any holes or irregularities in the substrate must be previously repaired with suitable Kimia products. Roughen the surface (if possible with a shot-peening machine or with a monobrush equipped with a carborundum disk) and carry out a water-cleaning (any excess water must be removed with liquid suction).

Properly cured cement or resin substrates must be structurally sound (the pull-off tensile strength of the concrete must be > 1.5 MPa).

Any part that is detached and does not have sufficient mechanical characteristics must be removed.

To eliminate dust deposits, pre-existing coatings, rust, form-release agents, paints and varnishes, cement laitance and any other substance or material that may affect the adhesion, carefully prepare the substrate by shot-blasting, milling, bush-hammering, staking.

In case of contamination due to oils or greases, it is advisable, in particular, to mill the substrate (so as to remove the polluted cortical part) and wash the surface with warm water. Carry on a high pressure water cleaning.

To prepare the mixture, pour component "B" (hardener) into component "A" (resin) of Kimitech EC and mix with a low-speed drill (200-300 per minute) until you get a perfect mixture, having care not to incorporate air during mixing.

Add Kimifill K14 and continue stirring until you get a homogeneous mixture.

If you wish to reach esthetic effects, the mixture can be added with pigments, oxides, glitters or water-based neutral coloring pastes.

## CONSUMPTION

1,8 Kg (A+B+C)/m<sup>2</sup>/mm

## PACKAGING

The products of the system are sold separately:

- Kimitech EC: 6 Kg (A+B).
- Kimifill K14: Bag 20 Kg.

## STORAGE

Kimitech EC: stored in a sealed container in a dry place, the product will remain stable for 24 months.

Kimifill K14: fears moisture, store in a dry and sheltered place; . In these conditions and in tightly closed containers, it maintains its stability for 12 months.

CHARACTERISTICS	APPLICATION DATA (A+B+C)
Mixing ratio	6 Kg (Kimitech EC) 20 Kg (Kimifill K14)
Workability time at 25°C	35 mins
First hardening time at 25 °c	2 h
Complete hardening at 25°C	7 days
Concrete adhesion (uni en 1542)	> 2 MPa (Concrete failure) MPa
Compressive strength at 7 days	> 32 mpa
Compressive strength at 28 days	> 43 mpa
Flash point	Non-flammable
Reaction to fire	Class 1
Min. Temperature of application	+ 2 °c

CHARACTERISTICS	LIMITS EN 1504-2 COATING C, MC AND IR PRINCIPLES	TYPICAL DATA
Concrete adhesion EN 1542	Flexible systems without trafficking >0,8 Mpa; with trafficking >1,5 Mpa.  Rigid systems without trafficking >1 Mpa; with trafficking >2 MPa.	> 2 N/mm <sup>2</sup>
Permeability EN ISO 7783-2	Class I (permeable to vapour) Sd < 5 m  Class II 5 m ≤ Sd ≤ 50 m  Class III (not permeable to vapour) Sd > 50 m	Class I
Capillar absorption and water permeability EN 1062-3	< 0,1 Kg/m <sup>2</sup> ·h <sup>0.5</sup>	< 0,1 Kg/m <sup>2</sup> ·h <sup>0.5</sup>
Reaction class to fire	Declared value	F

## WARNING

Product intended for professional use.

Do not apply the product with imminent rain forecast, fog and dew or with temperatures below + 2 ° C. Do not apply the product on surfaces that show water in stagnation and/or percolation of water from the substrate.

The equipment used for the preparation and laying of the product must be cleaned with water before hardening.

In the case of fractionated mixing, respect the ratio by weight (not volume) indicated on the packages.

Handle with care: use gloves, protective creams and goggles to avoid contact with skin and eyes.

In case of contact with eyes, wash thoroughly with water and contact a doctor. For further information and advice on safe handling, storage and disposal of chemical products, the user must refer to the most recent Safety Data Sheet, containing physical, ecological, toxicological and other data related to safety. The information and requirements indicated in this Technical Data Sheet are based on our current knowledge and experience and are to be considered, in any case, purely indicative. They cannot guarantee the final result of the applied product and they have to be confirmed by exhaustive practical applications; therefore the user must test the suitability of the product for the intended application and its purpose. Users must always refer to the latest version of the local technical data sheet related to the product.