# Technical data sheet AD LUCEM

# LUCEM Choc®

Smooth, millimetric mortar for decorative flooring and walls inside

- Excellent adhesion to most new and old materials
- Suitable materials: concrete, mortar, tiles, plasterboard, fibre gypsum, cement board, plaster, brick, wood-based panels, old adhesive paint
- Reduced thickness
- Hardens quickly
- P4 / P4S Adapted



## **PRESENTATION**





# Colored cementitious powder

Component B
Resin in aqueous phase

#### Component A + Component B

After mixing, the colored mortar can easily be applied with a trowel. After its application, the coating has subtle shades of colors and tones.

## PROPORTIONS OF THE MIX



**Component A** 20 kg of powder

for

**Component B** 5 kg of resin

### **DILUTION**

N/A

#### COVERAGE





Floors: 3 kg/m<sup>2</sup>

**Walls**:  $2 \text{ kg/m}^2$ 

## MATERIAL



Scale, mechanical mixer (special for mortar & plaster), STR, diamond surfacing machine, orbital sander, vacuum, trowels and spatulas

## COLORS



90 colors from the color chart

#### CONDITIONS OF USE



Room and product temperatures: 5 to 30°C

▲ Out of this range the aesthetic and mechanical properties of the product and its adhesion to the substrate may be reduced.

#### MIXING TIME - POT LIFE



2 hours (at 20°C)

▲ The amount of time before the product hardens greatly decreases when the temperature exceeds 20°C.

#### **DRYING TIME**



Between the coats	24 hours*
Before the sealant, the water-oil repellent or the wax	24 hours*
Before furniture fitting and water	7 days
Before mat & carpet fitting	15 days

\* At 20°C et 65% relative humidity level

Indications to be adapted depending on the temperature, humidity and ventilation of the room.

## CLEANING THE TOOLS



With water before the product has dried





# LUCEM Choc®

## PREPARATION OF THE SURFACE

In compliance with NF DTU 26.1 Mortar work.

The substrate must have a cohesive strength superior to 1 MPa. (1 N/ mm²). The material should be clean, healthy, and free of debris. It should of course be free of traces of oil, grease, laitance, etc.

Cracks and joints should be treated according to standard practice.

▲ The microcement LUCEM Choc® will crack if the substrate cracks itself.

#### **CONCRETE SLABS AND SCREEDS**

The material must be free of water stains or mould, efflorescence or saltpetre. Moisture should stand at less than 5% by mass.

#### (1) Sanding

Sand with diamond pads the concrete slabs and screeds, old or new, to de-gloss and remove impurities. Remove dust with a vacuum cleaner.

#### 2 Base coat sealer

Apply 1 or several coats of the **AD LUCEM** base coat sealer depending on the porosity of the substrate.

Check the porosity of the material with the "water drop test". Drop one drop of water and measure the time it takes to soak in. Repeat the test on several different areas of the surface.

If the drop of water takes less than a minute to soak in, the surface is highly porous and should be prepared with several coats of **AD LUCEM** base coat sealer.

If the drop is absorbed after 1-5 minutes, the surface is averagely porous. It will suffice to apply 1 coat of **AD LUCEM** base coat sealer.

Refer to the base coat sealer data sheet for instructions.

→ The base coat sealer ensures a good adhesion of the LUCEM Choc microcement and avoids the bubbling and desiccation.

## ANHYDRITE SCREEDS

Anhydrite screeds must have a residual moisture content of less than 0.5%. Anhydrite screeds must be sanded, and vacuumed with no dust left.

The compressible tape attached to peripheral joints should be kept.

#### 1 Base coat sealer

Apply 1-2 coats of **AD LUCEM** base coat sealer depending on the porosity of the screed. *Refer to the base coat sealer data sheet for instructions.* 

▲ In the case of underfloor heating, the floor must have been heated before laying the coating and the heating must be turned off at least 2 days before work starts. The heating can only be turned back on after a minimum of 2 days after the coating and finishing has been carried out. Refer to Technical Specification No. 3578 of the CSTB for calcium sulphate based fluid screeds.

#### **EXISTING TILED FLOORS**

#### (1) Sanding

Remove all broken tiles and the ones which sound hollow.

Sand with a diamond pad to remove the glaze of the tiles and the protection of stone tiles.

#### (2) Base coat sealer

Apply 1-2 coats of **AD LUCEM** base coat sealer depending on the porosity of the screed. *Refer to the base coat sealer data sheet for instructions.* 

#### (3) LUCEM Choc base

Fill the grouts with the LUCEM Choc base compound.

Apply afterward the LUCEM Choc base compound on the entire surface.

#### (4) Sanding

Sand with a diamond pad to level the surface.

#### (5) Base coat sealer

Apply 1 coat of **AD LUCEM** base coat sealer. *Refer to the base coat sealer data sheet for instructions.* 

#### **OLD PAINTED FLOORS**

## (1) Sanding

Remove entirely the painting with a diamond disc to recover a substrate with cohesive strength superior to 1 MPa (1 N/mm<sup>2</sup>).

#### WALLS

#### ■ Cementitious walls

## ① Brush, coat

<u>Uniform</u> cement mortar surfaces and concrete shells should be dry brushed to remove efflorescences. The <u>non uniform</u> cementitious surfaces should be rendered with an adapted compound\*.

## ② Base coat sealer

Apply 1 coat of **AD LUCEM** base coat sealer. Refer to the base coat sealer data sheet for instructions.







## PREPARATION OF THE SURFACE

■ Gypsum plaster, plasterboard and plaster slabs

#### 1 Primer

Apply the adapted primer.

## 2 Adhesive primer

Apply 1 coat of **AD LUCEM** adhesive primer. *Refer* to the adhesive primer technical sheet for the instructions.

■ Terracotta tiles, aerated blocks and concrete walls

## (1) Coating

Coat with the adapted compound\*.

#### (2) Base coat sealer

Apply 1 coat of **AD LUCEM** base coat sealer. *Refer* to the base coat sealer data sheet for instructions.

■ Existing adherent tiles on walls

#### (1) Sanding

Remove all broken tiles and the ones which sound hollow.

Sand with a diamond pad to remove the glaze of the tiles.

#### (2) LUCEM Choc base

Fill the existing grout in between the tiles with the LUCEM Choc base compound.

Apply afterward the LUCEM Choc base compound on the entire surface.

#### ③ Sanding

Sand with a diamond pad to level the surface.

## 4 Base coat sealer

Apply 1 coat of **AD LUCEM** base coat sealer.

Refer to the base coat sealer data sheet for instructions.

■ Existing painted walls

#### (1) Sanding

Remove all non adherent paint and unglaze the adherent painting.

#### (2) Adhesive primer

Apply 1 coat of **AD LUCEM** adhesive primer. *Refer* to the adhesive primer technical sheet for the instructions.

#### ■ Plywood, MDF, OSB panels

#### 1 Adhesive primer

The panels made of plywood, MDF and OSB must be coated with **AD LUCEM** adhesive primer. Refer to the adhesive primer technical sheet for the instructions.

- A fiberglass mesh is necessary to reinforce the junctions between the panels.
- \* A "zero level" first coating allows to limit the defaults of the substrate due to a difference of porosity (so called ghost).

To do so, the compounds and fillers used to prepare the substrates should match together and should not be too different in terms of porosity. The repairs should not present any structural difference with the substrate.

#### SUBSTRATES IN DAMP AREAS

The preparation work to waterproof and tank the area should be made following the professional rules in the state of the art.

#### **EXTERIORS**

Only mineral homogeneous substrates are suitable for being coated with LUCEM Choc microcement. Please contact us for more information.





# LUCEM Choc®

#### **APPLICATION**

#### PREPARATION OF THE MIX

#### (1) Mixing

Mix all of component A with all of component B with a mechanical mixer until you have a smooth paste without lumps and of uniform color. Divide the product by accurately weighing 4 kg of component A (powder) and 1 kg of component B (resin) if the application team is not large enough.

#### Proportions of the mix

Component A Powder	20 Kg	10 Kg	4 Kg
Component B Resin	5 Kg	2.5 Kg	1 Kg
TOTAL	25 Ka	12.5 Ka	5 Ka

#### 2 Thinning agent

Add the **AD LUCEM** thinning agent to your convenience (up to 75 mL/ kit of 25 Kg) for the second coat of **LJCEM Choc** on floors. *Refer to the thinning agent technical sheet for the instructions.* 

→ The thinning agent increases the working time of LJCEM Choc and allows to obtain a smoother surface.

#### 3 Water

As an option, add a small quantity of water to LJCEM Choc when the temperature exceeds 25°C. Some colors may need this little amount of water to be easier to apply. The same quantity should then be added to the other mixes to not create differences of tones and colors between the different mixes.

## 4 Second mixing

Mix again just before the application to smooth the paste.

## APPLICATION

## 1 1st coat

For floors, apply the **LUCEM Choc** microcement with a notched trowel (6mm teeth) to level the thickness and close in immediately with a spatula (Parfait Liss').

On vertical surfaces, apply directly a thin coat with a spatula or a trowel.

#### ② Sanding

When dry, sand with a 60 grit abrasive. For floors, use at least a machine with large pads (STR type). Remove dust.

#### 3 Base coat sealer

Apply 1 coat of AD LUCEM base coat sealer.

 $\ensuremath{\rightarrow}$  The base coat sealer avoids bubbles in the following coats.

#### 4 2nd coat

When dry, apply the 2<sup>nd</sup> coat of LJCEM Choc and smooth the compound to close it in and to obtain the desired aesthetic effects.

▲ Not allowing the product to dry properly between coats could lead to aesthetic defects (traces, lighter color, ghosts etc.).

#### (5) Sanding

When dry, sand the surface (120 grit) for an even finish and then remove dust perfectly. To do this, vacuum carefully and thoroughly. Remove the remaining dust with a green pad and carefully vacuum again.

▲ Residual dust can cause aesthetic issues (lighter areas) and technical problems (poor grip for topcoats).

## 6 Expansion gaps

Mark the expansion gaps present in the substrate.

#### WALK- IN SHOWERS

#### ① Grooves

Make horizontal and vertical grooves by spreading and pushing the LUCEM Choc in all angles. Use a 40 mm diameter PVC tube to apply it to give a rounded shape.

#### 2 Vertical surfaces

Apply the LUCEM Choc on the vertical surfaces, onto and over the floor.

#### (3) So

Apply then the LUCEM Choc on the floor.

## SPECIFIC PRECAUTIONS

Contains cement. Avoid contact with skin and eyes. Do not breathe in dust.

Read the safety information specification on the internet <a href="www.adlucem-matieres.com">www.adlucem-matieres.com</a> for proper use and waste disposal information.







## **FINISHING COAT**

## 1 LUCEMLiss

On floors, apply the LUCEM Liss before applying the sealant. Refer to the LUCEM Liss technical sheet for the instructions.

On walls, the application of the LJCEM Liss is not necessary, as the smoothing of the LJCEM Choc is easier for vertical surfaces than for horizontal ones.

 $\rightarrow$  Le  $\mbox{LUCEM Liss}\mbox{\ }$  allows to close and perfectly smooth the surface.

## 2 Sealant / wax / water-oil repellent

When dry, apply the **AD LUCEM** sealant, the wax or the water-oil repellent to protect the microcement. *Refer to the technical sheets of these products for the instructions.* 

## **MAINTENANCE**

#### **INTERIORS**

The sealed or waxed surfaces should be cleaned with the cleaning and maintenance products from PLASTOR.

The floors can be maintained and revived with the  $\ensuremath{\mathsf{PLASTOR}}$  reviver.

Refer to the different technical sheets of the maintenance and cleaning products for the instructions.

▲ Whatever type of protection is chosen, never use a maintenance or cleaning product which contains acids.

#### **EXTERIORS**

The protection with the water and oil repellent needs to be redone regularly for an optimal long lasting result.

## **PACKAGING**

25 Kg kit

Component A 20 kg bucket



**Component B** 5 kg jerrycan



Component A 4 kg bucket



5 Kg kit

Component B 1 kg bottle

## **STORAGE**

## STORAGE

Component A: store in a dry place

 $\begin{tabular}{ll} \textbf{Component B}: store away from frost and from important heat \\ \end{tabular}$ 

## SHELF-LIFE

1 year in original packaging





## **TECHNICAL DATAS**

#### PHYSICO-CHEMICAL PROPERTIES

Density of the fresh mortar 2.04	
Grain sizes	0 à 0.4 mm
Pot life at 20°C	60 minutes

#### RESIDUAL LEVEL OF HUMIDITY AFTER 24 HRS

at 20°C (65% relative humidity)	< 1%
at 10°C (65% relative humidity)	< 4%

#### **MECHANICAL RESISTANCES**

## **COMPRESSIVE STRENGTH**

at 28 days	38 MPa (38N/mm2)
at 7 days	28 MPa (28N/mm2)
at 24 hours	13 MPa (13N/mm2)

#### **FLEXIBLE STRENGTH**

at 28 days	11 MPa (11 N/mm2)
at 7 days	8 MPa (8 N/mm2)
at 24 hours	4 MPa (4 N/mm2)

Adhesive strength on concrete	2.16 MPa (2.16 N/mm2)
Destination	Adapted P4 / P4S



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## TECHNIQUE BETON - ZI Avenue Albert Einstein 77550 Moissy Cramayel - France

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LUCCH-RPC-2015 09 09-00001

EN 13813 CT - C35 - F10 LUCEM CHOC

Enduit de sol

Réaction au feu : Ffl

Emission de substances corrosives : CT

Perméabilité à l'eau : NDP

Perméabilité aux vapeurs d'eau : NDP Résistance à la compression : C35 Résistance à la flexion : F10

Résistance à l'usure : NDP Isolation au bruit : NDP Absorption du bruit : NDP Résistance thermique : NDP Résistance chimique : NDP











#### DÉCLARATION DES PERFORMANCES

N° LUCCH-RPC-2015 09 09-00001

1. Code d'identification unique du produit type :

LUCEM CHOC

2. Numéro de type, de lot ou de série ou tout autre élément permettant l'identification du produit de construction, conformément à l'article 11, paragraphe 4 :

Voir emballage : nom du produit, date de fabrication, numéro de sac, usine de fabrication

 Usage ou usages prévus du produit de construction, conformément à la spécification technique harmonisée applicable, comme prévu par le fabricant :

Enduit de sol

- 4. Nom, raison sociale ou marque déposée et adresse de contact du fabricant, conformément à l'article 11, paragraphe 5 : TECHNIQUE BETON - ZI Avenue Albert Einstein 77550 Moissy Cramayel - France
- 5. Le cas échéant, nom et adresse de contact du mandataire dont le mandat couvre les tâches visées à l'article 12, paragraphe 2 :

Non Applicable

6. Le ou les systèmes d'évaluation et de vérification de la constance des performances du produit de construction, conformément à l'annexe V :

Système d'attestation de conformité 4

7. Dans le cas de la déclaration des performances concernant un produit de construction couvert par une norme harmonisée :

Le fabricant a réalisé le contrôle de la production en usine (CPU) et les essais de type initiaux selon le système 4.

8. Dans le cas de la déclaration des performances concernant un produit de construction pour lequel une évaluation technique européenne a été délivrée :

Non applicable

9. Performances déclarées

Caractéristiques essentielles et Performances	Spécifications techniques harmonisées
Réaction au feu : Ffl Emission de substances corrosives : CT Perméabilité à l'eau : NDP Perméabilité aux vapeurs d'eau : NDP Résistance à la compression : C35 Résistance à la lexion : F10 Résistance à l'usure : NDP Isolation au bruit : NDP Absorption du bruit : NDP Résistance chimique : NDP Résistance chimique : NDP	EN 13813 CT - C35 - F10

 Les performances du produit identifié aux points 1 et 2 sont conformes aux performances déclarées indiquées au point 9.

La présente déclaration des performances est établie sous la seule responsabilité du fabricant identifié au point 4.

Signé pour le fabricant et en son nom par : Jacques Le Bruchec, Président Technique Béton

Fait à Moissy Cramayel Le .02.1.10.120.15 Signature

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