

# Keracem® Eco

**Keracem® Eco is a certified, eco-friendly, hydraulic, normal-setting and rapid-drying mineral binder for high-performance screeds and heat-radiant slabs, ideal for use in GreenBuilding. With very low volatile organic compound emissions. Recyclable as an inert material at the end of its life.**

Keracem® Eco, mixed with inert materials of assorted grain size from 0 to 8 mm, creates screeds of high dimensional stability and constant moisture stability, guaranteeing the rapid, safe laying of ceramic tiles after 24 hours and LVT, vinyl and hardwood floors after just 5 days.

## IDEAL AS A SUBSTRATE FOR:

- **Ceramic tiles and glass mosaics**
- **Porcelain tiles**
- **Natural stone and marble**
- **Solid wood and pre-finished hardwood floors**
- **Resilient materials, LVT, vinyl, PVC and carpet flooring**



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## KERACEM<sup>®</sup> ECO

High-performance mineral binder  
for screeds for all types of floors



**KERA KOLL**  
The GreenBuilding Company



# From the Kerakoll laboratories the certified, mineral hydraulic binder for each type of flooring.

The 9 research laboratories within the futuristic GreenLab Kerakoll represent the world's most advanced technology centre for the study and development of new materials for green building sector.

Kerakoll has been a leader in the substrates sector for 50 years thanks to the continuous technological evolution of its products: they provide the best eco-friendly solutions and are able to meet all your flooring needs.

Keracem® Eco is the latest-generation high-performance screed that guarantees the quick and safe laying of ceramic tiles after 24 hours and of LVT, vinyl and hardwood floors after only 5 days without having to wait for longer curing times.

## **Keracem® Eco is eco-friendly.**

Keracem® Eco can be recycled as mineral inert material, avoiding waste disposal costs and environmental impact and is certified with low VOC emissions.





## High-performance mineral binder for screeds for all types of floors

### Keracem<sup>®</sup> Eco is multi-purpose

- Ideal for any flooring, because its use allows quick preparation of high-performance screeds
- Compatible with any type of finished flooring
- Ideal for preparing screeds on radiant heating and cooling systems

### Keracem<sup>®</sup> Eco is easy and fast on-site

- Improved workability of the mixture which translates into less effort on the part of the workers
- Extended workability times ( $\geq 3$  h) allow a more efficient organization of the building site
- Very quickly safe to walk on thanks to the rapid increase in mechanical performance
- Less binder consumption thanks to the use of selected high-performance cements

### Keracem<sup>®</sup> Eco guarantees high performance

- Greater mechanical performance thanks to an optimized water/cement ratio
- Compensation of hygrometric shrinkage which reduces the formation of surface cracks
- Greater thermal conductivity thanks to the greater ease of compacting
- Quick drying times:
  - ≈ 24 hrs for the laying of ceramic tiles\*
  - ≈ 5 days for the laying of hardwood floors, LVT, vinyl\*

\* Values taken on a thickness of 5 cm at a temperature of +20 °C, 65% R.H.. and no ventilation. The following may vary according to specific conditions at the building site: temperature, ventilation and absorbency level of the substrate, type and the grain size of inert material binder dosage.

## Technical Data compliant with Kerakoll Quality Standard

Appearance	mixture of binders	
Apparent volumetric mass	≈ 0,96 kg/dm <sup>3</sup>	UEAtc/CSTB 2435
Shelf life	≈ 12 months in the original packaging in dry environment	
Pack	20 kg bags	
Mixing water	up to ≈ 13 l / 1 20 kg bag	
Pot life	≥ 3 hrs	
Temperature range for application	from +5 °C to +35 °C	
Foot traffic	≈ 8 hrs	
Waiting time before laying (thickness 5 cm):		
- ceramic tiles	≈ 24 hrs – U.R. < 3 % CM	
- LVT, vinyl and hardwood floors	≈ 5 days - U.R. < 2 % CM	

*Values taken at +20 °C, 65% R.H. and no ventilation. Data may vary depending on specific conditions at the building site, i.e. temperature, ventilation and absorbcency level of the substrate.*

## Performance

### VOC INDOOR AIR QUALITY (IAQ) - VOLATILE ORGANIC COMPOUND EMISSIONS

Conformity	EC 1 plus GEV-Emicode		GEV Certified 4816/11.01.02
<b>HIGH-TECH</b>			
Compressive strength (binder) after 28 days	≥ 55 N/mm <sup>2</sup>	EN 196/1	
Screed performance (DIN 1045-2 B/C sand):	1:8 / 200 kg/m <sup>3</sup>	1:6 / 250 kg/m <sup>3</sup>	1:5 / 300 kg/m <sup>3</sup>
Resistance:			
- compressive strength after 28 days	≥ 22 N/mm <sup>2</sup> (C20)	≥ 34 N/mm <sup>2</sup> (C30)	≥ 40,5 N/mm <sup>2</sup> (C40)
- flexural strength after 28 days	≥ 5 N/mm <sup>2</sup> (F5)	≥ 6 N/mm <sup>2</sup> (F6)	≥ 6,5 N/mm <sup>2</sup> (F6)
Resistances EN 13892-2	C20–F5	C30–F6	C40–F6
Coverage per cm of thickness	≈ 2 kg/m <sup>2</sup>	≈ 2,5 kg/m <sup>2</sup>	≈ 3 kg/m <sup>2</sup>
Screed performance (DIN 1045-2 A/B sand):	1:8 / 200 kg/m <sup>3</sup>	1:6 / 250 kg/m <sup>3</sup>	1:5 / 300 kg/m <sup>3</sup>
Resistance:			
- compressive strength after 28 days	≥ 32 N/mm <sup>2</sup> (C30)	≥ 45 N/mm <sup>2</sup> (C40)	≥ 55 N/mm <sup>2</sup> (C50)
- flexural strength after 28 days	≥ 6,5 N/mm <sup>2</sup> (F6)	≥ 8 N/mm <sup>2</sup> (F7)	≥ 9 N/mm <sup>2</sup> (F7)
Resistances EN 13892-2	C30–F6	C40–F7	C50–F7
Coverage per cm of thickness	≈ 2 kg/m <sup>2</sup>	≈ 2,5 kg/m <sup>2</sup>	≈ 3 kg/m <sup>2</sup>

*Values taken at +20 °C, 65% R.H. and no ventilation. Data may vary depending on specific conditions at the building site.*

## Examples of mixing ratios

Dosage	Keracem® Eco	Inert materials	Water
200 kg/m <sup>3</sup>	≈ 20 kg (1 bag)	≈ 160 kg (≈ 100 dm <sup>3</sup> ) *	max. 13 ℓ **
250 kg/m <sup>3</sup>	≈ 20 kg (1 bag)	≈ 140 kg (≈ 87,5 dm <sup>3</sup> ) *	max. 11 ℓ **
300 kg/m <sup>3</sup>	≈ 20 kg (1 bag)	≈ 120 kg (≈ 75 dm <sup>3</sup> ) *	max. 9,5 ℓ **

(\*) Value calculated considering an average density of 1600 kg/m<sup>3</sup>.

(\*\*) Important: maximum value calculated with dry inert material. Local standards might request different proportions.