

# Universal Eco

**Certified, eco-friendly, ready-to-use organic mineral adhesive for high adhesion, high-performance laying with no vertical slip, ideal for use in GreenBuilding. Solvent-free and with very low volatile organic compound emissions. Safeguards the health of both operators and the environment.**

Universal Eco has no vertical slip and develops a long adjustability time which means ceramic tiles can also be laid diagonally, from top to bottom, without having to use spacers.



GREENBUILDING RATING®					
	Natural mineral content 75%	Very low VOC emissions	Solvent-free	No environmental hazard rating	Non-toxic and non-hazardous
RATING SYSTEM ACCREDITED BY CERTIFICATION BODY SGS					

PRODUCT STRENGTHS
<ul style="list-style-type: none"> <li>Flooring and walls, for internal use</li> <li>Suitable for ceramic tiles and stable natural stone on cement-, gypsum- or anhydrite-based substrates</li> <li>Adjustability ≥ 30 min.</li> </ul>

AREAS OF USE
<p><b>Use</b> Laying ceramic tiles on walls and floors.</p> <p><b>Materials:</b></p> <ul style="list-style-type: none"> <li>ceramic tiles, klinker, cotto, glass and ceramic mosaic, of all types and formats</li> <li>natural stone, recomposed materials and marble not subjected to deformation or staining due to water absorption</li> <li>slabs of insulating or soundproofing material</li> </ul> <p><b>Substrates:</b></p> <ul style="list-style-type: none"> <li>mineral screeds Keracem® Eco Pronto and Keracem® Eco Pronto plus</li> <li>mineral screeds made with Keracem® Eco mineral binder</li> <li>cement, gypsum and scagliola plasters</li> <li>plasterboard, gypsum brick, concrete block and cellular concrete walls</li> <li>cement-based screeds, anhydrite screeds</li> <li>prefabricated concrete and fresh concrete castings</li> <li>chipboard, plywood and similar materials</li> </ul> <p>On internal floors and walls, in domestic, commercial and industrial applications.</p> <p><b>Do not use</b> For external use, on wet surfaces or substrates subjected to moisture rising; in environments where water is always present; with low-absorption tiles on non-absorbent substrates.</p>

INSTRUCTIONS FOR USE
<p><b>Preparation of substrates</b> The substrate must be even, dry, free from dust, oil and grease, free of any rising moisture, with no loose debris, flaky or parts. Uneven areas will be corrected in advance with suitable finishing products. A primer is normally not necessary when laying on gypsum or anhydrite. Nevertheless, check that the substrate is perfectly dry, laid in a single layer and without any thin finishing, that may be imperfectly anchored and therefore not suitable for the tile covering.</p> <p><b>Preparation</b> Universal Eco is ready-to-use and does not need any preparation. In any case, before use it is advisable to remix the product well inside the container to ensure the mixture is of an even consistency. The high thixotropy of Universal Eco means it can also be used on walls. Any excess adhesive can be kept for later use by putting the lid back on the container.</p>

\* ÉMISSION DANS L'AIR INTÉRIEUR Information sur le niveau d'émission de substances volatiles dans l'air intérieur, présentant un risque de toxicité par inhalation, sur une échelle de classe allant de A+ (très faibles émissions) à C (fortes émissions).

## INSTRUCTIONS FOR USE

### Application

Universal Eco should be applied directly to the substrate with a suitable toothed spreader; use a quantity of adhesive sufficient to ensure full tile wettability of the back. Lay tiles while the adhesive is fresh, pressing them lightly to ensure perfect adhesion. Ceramic tiles do not normally have to be wetted in advance, however check for any traces of dust or dirt, which must be removed.

### Cleaning

Residual traces of Universal Eco can be removed from tools and covered surfaces with water before the product hardens.

## SPECIAL NOTES

Universal Eco is an adhesive dispersed in water. Low temperatures and low substrate and material absorption may greatly extend setting and hardening times of the adhesive.

Insert desolidarisation and elastic fractionizing joints every 20/25 m<sup>2</sup> and every 8 metres in long, narrow applications.

## ABSTRACT

*Certified laying of ceramic tiles and marble must be performed with a ready-to-use, eco-friendly, organic, mineral adhesive for high adhesion laying with no vertical slip, compliant with EN 12004 – Class D1 TE, GreenBuilding Rating® Eco 5, such as Universal Eco by Kerakoll Spa. A \_\_\_ mm toothed spreader must be used for an average coverage of ≈ \_\_\_ kg/m<sup>2</sup>. Existing joints must be respected, create elastic fractionizing joints every \_\_\_ m<sup>2</sup>. Tiles must be laid with joints of \_\_\_ mm width.*

## TECHNICAL DATA COMPLIANT WITH KERAKOLL QUALITY STANDARD

Appearance	White paste	
Specific weight	≈ 1.79 kg/dm <sup>3</sup>	
Mineralogical nature of inert material	Crystalline carbonate	
Grading	≈ 0 – 300 µm	
Shelf life	≈ 12 months in the original packaging	
Warning	Protect from frost, avoid direct exposure to sunlight and sources of heat	
Pack	20 / 5 kg buckets	
Viscosity	≈ 480,000 mPa · s, rotor 95 RPM 2.5	Brookfield method
Temperature range for application	from +5 °C to +35 °C	
Open time	≥ 30 min.	EN 1346
Adjustability	≥ 30 min.	
Vertical slip	≤ 0.5 mm	EN 1308
Foot traffic	≈ 24 hrs	
Grouting	≈ 12 hrs on walls / ≈ 24 hrs on floors	
Interval before normal use	≈ 7 days	
Coverage *	≈ 2 – 4 kg/m <sup>2</sup>	

*Values taken at +23 °C, 50% 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 and of the materials laid.*

*(\* ) Can vary depending on the irregularity of the substrate and the format of the tile.*

## PERFORMANCE

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

Conformity	EC 1 plus GEV-Emicode	GEV certified 2949/11.01.02
<b>HIGH-TECH</b>		
Shear adhesion after 14 days	≥ 2.5 N/mm <sup>2</sup>	EN 1324
Adhesion to concrete after 28 days	≥ 2.5 N/mm <sup>2</sup>	EN 1348
Durability test:		
- Shear adhesion after heat ageing	≥ 2.5 N/mm <sup>2</sup>	EN 1324
Open time	≥ 30 min.	EN 1346
Vertical slip	≤ 0.5 mm	EN 1308
Working temperature	from -30 °C to +80 °C	
Conformity	D1	EN 12004

Values taken at +23 °C, 50% R.H. and no ventilation. Data may vary depending on specific conditions at the building site.

## WARNING

- **Product for professional use**
- abide by any standards and national regulations
- store and use at a temperature above +5 °C. Protect from frost
- do not use the adhesive to correct substrate irregularities
- lay and press tiles onto fresh adhesive, making sure it has not formed a surface skin
- the temperature, ventilation and absorption of the substrate and covering materials, may vary the adhesive workability and setting times
- if necessary, ask for the safety data sheet
- for any other issues, contact the Kerakoll Worldwide Global Service - [info@kerakoll.ae](mailto:info@kerakoll.ae)

The Eco and Bio classifications refer to the GreenBuilding Rating® Manual 2012. This information was last updated in December 2018 (ref. GBR Data Report - 12.18); please note that additions and/or amendments may be made over time by KERAKOLL SpA, for the latest version, see [www.kerakoll.com](http://www.kerakoll.com). KERAKOLL SpA shall therefore be liable for the validity, accuracy and updating of information provided only when taken directly from its institutional website. The technical data sheet given here is based on our technical and practical knowledge. As it is not possible for us to directly check the conditions in your building yards and the execution of the work, this information represents general indications that do not bind Kerakoll in any way. Therefore, it is advisable to perform a preliminary test to verify the suitability of the product for your purposes.