# Keracem

Certified, hydraulic, normal-setting, rapid-drying mineral binder for high-performance screeds and heat-radiant slabs.

Keracem, 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 hardwood floors after just 5 days.




1. For internal and external use
2. Low water/cement ratio
3. Mechanical performances superior to those of Portland cements
4. High dimensional stability and long-lasting performance
5. Prolonged workability both in the manual and mechanical laying
6. Suitable for laying ceramic tiles, porcelain tiles, natural stone, hardwood floors and resilient materials using adhesives

kerakoll

# Areas of application

→ Intended use:
Screed with normal setting and rapid drying, bonded to the substrate with thickness ≥ 20 mm, floating screeds with thickness ≥ 40 mm if mixed with suitable inert materials.

Compatible adhesives:
- gel adhesives, mineral adhesives with SAS technology, single and two-component organic mineral adhesives
- reactive-epoxy and polyurethane, single and two-component cement-based adhesives, dispersed in water or solvent solutions

Covering materials:
- homogeneous tiles, ceramic, porcelain tiles, klinker, cotto, glass and ceramic mosaic, of all types and formats
- natural stone, recomposed materials and marble including those subject to high deformation or rapid staining due to water absorption
- hardwood floors, rubber, PVC, linoleum, carpeting

Substrates:
- insulation castings and flooring in prefabricated concrete or fresh concrete castings, cement-based screeds, lightened concrete, panels for sound-proofing and thermal isolation

Screeds for internal/external use, in domestic, commercial and industrial applications, also in areas subject to thermal shock and freezing, underfloor heating systems.

Do not use on deformable substrates, without having previously calculated the degree of flexure and having provided for the necessary fractionising joints on the screed; in adherence on concrete castings which have not yet fully cured.

# Instructions for use

→ Preparation of substrates
Substrates must be dimensionally stable, dry, free from any rising damp, without cracks, free from dust and loose, crumbling parts and must present a degree of stability suitable for its use. The screed to be covered must be separated from all vertical elements by means of a band of flexible material with a thickness of ≈ 8 – 10 mm, along the entire height of the screed. The structural joints present in the substrate must be created accordingly also in the thickness of the screed.
- Anchored screeds: in the case of irregular substrates with screed thicknesses which are variable or in any case less than 40 mm, it is advisable to prepare the substrate positioning, between the midpoint and lower third of the total thickness of the screed, an electro-welded 50x50-mm mesh of Ø 2 mm, to be anchored to the substrate. To improve adhesion to the substrate apply a slurry key "wet on wet", prepared with 2.5 parts Keracem, 1 part water-based Keraplast P6 latex and 1 part water.
- Floating screeds: when laying water-sensitive flooring or in the case of substrates with a risk of moisture rising or which are not perfectly cured, it is important to create a vapour barrier over the substrate (which should be smooth and free from rough parts) using sheets of polyethylene or PVC. The sheets should be laid overlapping one another by at least 20 cm, sealed with adhesive tape and turned up on the walls and vertical elements such as pillars to a height corresponding with the entire thickness of the screed.
- Screeds on compressible substrates: on lightened, low-density substrates or in the presence of layers (also thin layers) of thermal/acoustic insulating materials, provide for screed thicknesses and possibly also reinforcement calculated on the basis of the deformability class of the materials mentioned.

→ Preparation
Keracem must be mixed with water and inert materials using tilting mixers, mobile concrete mixers, pressure or screw mixers, following the indicated water/Keracem mixing ratio, until a semi-dry consistency has been obtained, and using an inert material, with assorted grain size from 0 to 8 mm, free from residual traces of earth or dust, to create screeds with thicknesses between 20 and 80 mm. With screeds of lower or greater thicknesses use inert materials with a maximum grain size equal to approximately 1/3 of the required thickness. The percentage of water may vary considerably depending on the grading curve and on the humidity contained in the inert material, therefore it is advisable to start mixing the paste with a small quantity of water and gradually add the remaining part, until the optimum consistency has been obtained.

# Instructions for use

For laying floors in ceramic and natural stone in residential and commercial buildings not subject to heavy traffic or concentrated loads, a dosage of Keracem equal to 200 kg/m³ of inert material is recommended; when laying hardwood floors for the same uses the dosage of Keracem must be at least 250 kg/m³. For uses different from those indicated and subject to heavy, concentrated loads, the proportion of Keracem must be calculated in each separate case, using the technical characteristics given in this data sheet.
See the Technical Data table for examples of mixing ratios.

→ Application
Keracem can be applied in a practical and safe manner, following the traditional phases required to produce cement-based screeds: i.e. preparation of level belts, casting and compacting the paste, levelling and final smoothing with a float or by mechanical means. The compacting phase is particularly important to ensure the highest levels of mechanical performance. The finishing of the screed, carried out by moistening it with water and using a rotating steel disk, can result in the creation of a surface crust which is not very absorbent and will extend the drying time of the screed and worsen the performance of the adhesive. At the point where tubing is installed, where the thickness of the screed might be finer (minimum 2 cm), it is necessary to insert a tight-mesh, galvanized metal reinforcement grid (2 – 3 cm). At the point corresponding with day joints caused by interruption of the work process, it is necessary to make a connection between the two castings, inserting iron rod bolts of ≈ 50 cm length and 5 Ø with a distance of approximately 20/30 cm between one rod and the next, or a section of electro-welded mesh (Ø 5 mm, 20x20 cm mesh size) and applying to the wall of the casting, before continuation of the work, a slurry key prepared with 2.5 parts of Keracem, 1 part of water-based Keraplast P6 and 1 part water.

→ Cleaning
Residual traces of Keracem can be removed from machinery and tools using water before the product hardens.

# Special notes

→ Other dosages: to obtain higher degrees of mechanical resistance it is possible to prepare screeds with proportions of binder greater than those indicated. In these cases greater attention has to be paid to the mix design of the mortar to be prepared, carefully selecting the granulometric curve of the inert material and the water/Keracem ratio.

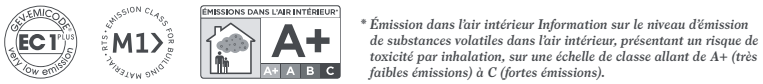
→ Joints: screed must be desolidarised around the perimeter, laying the Tapetex compressible tape along the whole perimeter of the room, on the walls and on any other vertical elements protruding from the supporting layer.
Creating fractionizing surface joints, cutting the screed while still wet up to a depth that is about 1/3 of the thickness and paying attention not to damage the reinforcement grid, if present. Their location and space distance must be determined at the design stage. They are typically carried out:
- in the case of sudden change in the size of flooring,
- near doors,
- in the presence of elements with loss of continuity,
- for the fractionizing of large continuous surfaces:
  25 m² with 6 m maximum individual size, in case of external screeds
  50 m² with 8 m maximum individual size, in case of internal screeds (40 m² in case of underfloor heating systems).

Structural joints located in the substrate must be respected.

→ Measurement of humidity: residual humidity can be measured correctly only with a calcium carbide hygrometer. Normal electric moisture meters are not recommended as they will provide unstable and incorrect values owing to the special hydraulic binders used.

→ Underfloor heating systems: initial start-up at least 5 days after laying the screed at a supply temperature of between +20 °C and +25 °C, maintain this for at least 3 days then set the maximum project temperature and maintain it for at least another 4 days. Bring the screed back to room temperature and lay (EN 1264-4 point 4.4).

# Certificates and marks




** 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).*

# Abstract

*The high-performance screed or heat-radiant slab will be made of hydraulic, normal-setting and rapid-drying mineral binder, such as Keracem by Kerakoll Spa, with an average thickness of ____ cm, suitable for laying of tiles after 24 hrs and hardwood floors 5 days after application. Dosage: ____ kg/m³ of inert material, with assorted grain size from 0 to 8 mm, and mixing water ≤ 50% of the binder. The supply and installation of deformable bands in polyethylene foam for desolidarisation joints, fractionizing of surfaces in large areas and finishing with float or steel disk are included. Average coverage ≈ ____ kg/m² per cm of thickness.*

| Technical Data compliant with Kerakoll Quality Standard | | |
|---|---|---|
| Appearance | mixture of binders | |
| Apparent volumetric mass | ≈ 0.96 kg/dm³ | UEAtc/CSTB 2435 |
| Shelf life | ≈ 12 months from production in the original sealed packaging, protect from humidity | |
| Pack | 25 kg bags | |
| **The recommended mixing ratios are as follows** | | |
| Dosage 200 kg/m³: | | |
| - Keracem | ≈ 25 kg (1 bag) | |
| - inert materials | ≈ 200 kg (≈ 125 dm³) * | |
| - water | max 16 l ** | |
| dosage 250 kg/m³: | | |
| - Keracem | ≈ 25 kg (1 bag) | |
| - inert materials | ≈ 160 kg (≈ 100 dm³) * | |
| - water | max 14 l ** | |
| Dosage 300 kg/m³: | | |
| - Keracem | ≈ 25 kg (1 bag) | |
| - inert materials | ≈ 135 kg (≈ 85 dm³) * | |
| - water | max 12 l ** | |
| Dosages: | | |
| - laying ceramics tiles | ≈ 200 kg/m³ sand 0 – 8 mm | EN 13139 – DIN 1045-2:A/B |
| - laying of hardwood floors | ≈ 250 kg/m³ sand 0 – 8 mm | EN 13139 – DIN 1045-2:A/B |
| 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 | |
| - hardwood floors | ≈ 5 days | |
| - resilient materials | ≈ 12 hrs | |
| Coverage | ≈ 2 – 2.5 kg/m² per cm of thickness | |

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 absorbency level of the substrate.
(*) Value calculated considering an average density of 1600 kg/m³.
(**) Important: maximum value calculated with dry inert material. Local standards might request different proportions.

| Performance | | | |
|---|---|---|---|
| **VOC Indoor Air Quality (IAQ) - Volatile organic compound emissions** | | | |
| Conformity | EC 1 plus GEV-Emicode | | GEV Certified 4816/11.01.02 |
| **HIGH-TECH** | | | |
| Compressive strength (binder) after 28 days | ≥ 55 N/mm² | | EN 196/1 |
| Performance (screed): | dosage 200 kg/m³ | dosage 250 kg/m³ | |
| - compressive strength after 28 days | ≥ 32 N/mm² | ≥ 45 N/mm² | EN 13892-2 |
| - flexural strength after 28 days | ≥ 6.5 N/mm² | ≥ 8 N/mm² | EN 13892-2 |
| Residual moisture (thickness 5 cm): | | | |
| - after 24 hrs | ≤ 3% | | |
| - after 5 days | ≤ 2% | | |

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

# Warning

→ Abide by any standards and national regulations
→ use in the recommended dosages
→ do not add other binders, additives or water to the mixture during the setting phase
→ low temperatures and high relative humidity lengthen the drying time of the screed
→ an excessive quantity of water and use of inert materials with a granulometric grading lower than that recommended or non-assorted will reduce strength and the drying time
→ before laying hardwood floors and resilient materials, check residual moisture with a calcium carbide hygrometer
→ do not moisten the screed and protect it from direct sunlight and currents of air for the first 24 hrs
→ if necessary, ask for the safety data sheet
→ for any other issues, please contact the Kerakoll Worldwide Global Service - info@kerakoll.ae

This information was last updated in July 2026; please note that additions and/or amendments may be made over time by KERAKOLL SpA; for the latest version, see 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 site 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.

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