Keratrade

KeraScreed BINDER

mineral binder for screeds

ADVANCED FORMULA

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

TDS
TECHNICAL DATA SHEET

Uses:	***Internal / External***
Bonded screeds	***10 - 100 mm***
Floating screeds	***40 -120 mm***
Coverage:	***2 – 2.5 kg/m² per cm of thickness***
Hardness: after 28 days	***>25 Mpa - 40Mpa*** based on mixing ratio
Pot Life:	***3 hrs***
Foot traffic:	***8 hrs***

WAITING TIME BEFORE LAYING

Ceramic tiles	***12 hrs***
Resilient materials	***24 hrs***
Waterproofing	***24 hrs***
Hardwood floors	***5 days***
Bag Size:	***15 KG***

KeraScreed BINDER is a certified, eco-friendly, hydraulic mineral binder with normal setting and rapid-drying properties. Ideal for creating high-performance screeds and heat-radiant slabs, it ensures dimensional stability, moisture resistance, and fast readiness for flooring installation:
Ceramic tiles: Lay after 12 hours.
Waterproofing & resilient flooring: Lay after 24 hours.
Hardwood floors: Lay after 5 days.

FEATURES
- Suitable for internal and external applications.
- Low water-to-cement ratio with enhanced mechanical properties compared to Portland cement.
- High dimensional stability and prolonged durability.
- Extended workability for manual or mechanical applications.
- Compatible with a wide range of flooring types, including ceramics, natural stone, hardwood, and resilient materials.

APPLICATIONS
·**Bonded Screeds:** Thickness ≥ 10 mm.
·**Floating Screeds:** Thickness ≥ 40 mm, using appropriate inert materials.
·**Substrates:** Suitable for prefabricated or fresh concrete, cement-based screeds, insulation panels, and lightened concrete.
·**Floor Coverings:** Homogeneous tiles, ceramic and porcelain tiles, natural stone, hardwood floors, rubber, PVC, linoleum, carpeting, and more.
·**Special Conditions:** Ideal for underfloor heating systems, areas subject to freezing, and thermal shock conditions.Do not use on deformable substrates without adequate reinforcement or fractionizing joints.

Preparation
1. Substrate Requirements:
- Stable, dry, and free from cracks, dust, and loose materials.
- Separate screed from vertical elements with an 8–10 mm flexible band.
- Apply structural joints from substrate to screed layer.

2.Reinforcement for Thin Screeds:
- Use a 50x50 mm electro-welded mesh for screeds <40 mm.
- Ensure mesh is anchored and embedded within the screed.

3.Floating Screeds:
- Place a vapor barrier (e.g., polyethylene or PVC sheets) over the substrate, overlapping by 20 cm and sealing edges with adhesive tape.

MIXING INSTRUCTIONS
- MIXING RATIO:
  Combine KeraScreed BINDER with water and inert materials (0–8 mm grain size) to achieve a semi-dry consistency.
- For ceramic/natural stone: 200 kg of KeraScreed BINDER per m³ of inert material.
- For resilient & hardwood: 250 kg of KeraScreed BINDER per m³ of inert material.
- Gradually add water to ensure consistent texture and avoid excess moisture.

Note: Adjust grain size (maximum 1/3 of screed thickness) for screeds outside the standard 25–80 mm range.

BONDED SCREEDS
A slurry key can be prepared with 2.5 parts of KeraScreed BINDER, 1 part of eco-friendly, water based Keraplast Eco P6 and 1 part water.

Technical Specifications

PROPERTY	VALUE
Binder type	Hydraulic, normal-setting
Drying time (ceramic tiles)	12 hours
Drying time (resilient & waterproofing)	24 hours
Drying time (hardwood floors)	5 days
Compatible adhesives	Mineral, organic-mineral, reactive

For detailed recommendations or non-standard applications, refer to the technical manual or consult with our support team.

Application KeraScreed BINDER 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.

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

Item Code: KERABIND-15KG

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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/KeraScreed BINDER ratio.
Joints: Ensure that the screed does not directly contact the walls or other vertical elements of the room. A compressible tape or expansion joint material should be placed along the entire perimeter of the area to allow for the expansion and movement of the screed. This is important to prevent any stresses that could cause cracking along the edges.
Creating fractionising 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 fractionising of large continuous surfaces: 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.

Technical Data Compliant with Keratrade Quality Standard

Parameter	**Details**
Appearance	Mixture of binders
Apparent Volumetric Mass	0.96 kg/dm³
Shelf Life	12 months (sealed packaging)
Packaging	15 kg bags

MIXING WATER Refer to mixing table for exact ratios
DOSAGES

For Ceramic Tiles	200 kg/m³ with 0–8 mm sand (EN 13139, DIN 1045-2:A/B)
For Resilient & Hardwood Floors	250 kg/m³ with 0–8 mm sand (EN 13139, DIN 1045-2:A/B)

Pot Life≥ 3 hours
Temperature Range for Application+5°C to +35°C
Foot Traffic 8 hours Waiting Times
BEFORE LAYING
Ceramic Tiles≈ 12 hours
Resilient Materials and waterproofing ≈ 24 hours
Hardwood Floors≈ 5 days
Coverage≈ 2–2.5 kg/m² per cm of thickness

NOTES
· Values were measured under conditions of 20°C and 65% relative humidity with no ventilation.
· Actual performance may vary depending on site-specific conditions, including temperature, ventilation, and substrate absorbency.

PERFORMANCE

PARAMETER	DETAILS
VOC Indoor Air Quality (IAQ)	Volatile Organic Compound Emissions
Compressive Strength (Binder)	55 N/mm² (EN 196/1)
Performance (Screed) after 28 Days	Dosage: 200 kg/m³-
Compressive Strength after 28 Days	≥ 25 N/mm² (EN 13892-2)- Flexural
Performance (Screed) after 28 Days	Dosage: 250 kg/m³-
Compressive Strength after 28 Days	≥ 40 N/mm² (EN 13892-2)- Flexural
Strength	≥ 6.5 N/mm² (EN 13892-2)
Residual Moisture (Thickness 5 cm)	After 24 hours ≤ 3% After 5 days≤ 2%

NOTES
- Values were measured under conditions of 20°C, 65% relative humidity, and no ventilation.
- Performance may vary depending on specific site conditions (temperature, ventilation, etc.).

WARNINGS AND PRECAUTIONS
- Professional Use: This product is intended for use by professionals only.
- Compliance: Adhere to all applicable standards and national regulations.
- Dosage: Use only in the recommended proportions.
- Additives: Do not add other binders, additives, or water during the setting phase.
- Environmental Conditions:
  Low temperatures and high humidity will extend drying times.
  Protect from direct sunlight and air currents during the first 24 hours.

MIXING:
- Avoid excessive water or non-assorted inert materials with improper granulometric grading.
- Use materials with recommended grading to maintain mechanical strength and proper drying times.
- Moisture Control: Before laying hardwood or resilient materials, check residual moisture using a calcium carbide hygrometer.
- Safety Data Sheet: Request and review the Safety Data Sheet (SDS) if needed.

By following these precautions, you ensure optimal performance and safety when working with KeraScreed BINDER.

DOSAGE	BINDER	INERT MATERIALS	WATER
200kg/m³	=15kg (1 Bag)	=120kg*	max 9.6 L**
250kg/m³	=15kg (1 Bag)	=90kg*	max 8.4 L**

* Value calculated considering an average of 1600kg m³
** Important: maximum value calculated with dry material
Local standards might request different proportions

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