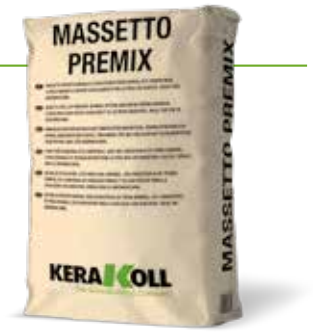
Massetto Premix



Ready-to-use, eco-friendly, normal-setting and rapid-drying mineral screed with damp earth consistency to lay with adhesives, ideal for use in GreenBuilding. With low CO_2 emissions and very low volatile organic compound emissions, contains recycled raw materials. Recyclable as an inert material at the end of its life.

Massetto Premix develops an excellent workability whether mixed with a standard concrete mixer or a pressure mixer with pneumatic transportation. The surface closure obtained with Massetto Premix, is optimal for bonding floors.

CE EN 13813 | CT C16-F4 EN 13813 STANDARD | GEV-EMICODE EC 1 PLUS Very low emission | EMISSIONS DANS L'AIR INTÉRIEUR* A+ | CO2eq Carbon Footprint | CONTRIBUTES TO LEED POINTS

GREENBUILDING RATING®

Massetto Premix
- Category: Inorganic mineral products
- Preparation of the substrates

rating5

Natural mineral content 92%	Recycled mineral content 35%	CO_2/kg emission 58 g	Very low VOC emissions	Can be recycled as inert material

RATING SYSTEM ACCREDITED BY CERTIFICATION BODY SGS

PRODUCT STRENGTHS

- Internal, external
- Ready-to-use, ensures constant levels of performance
- Ideal in renovation work
- Quick surface closure, optimal for bonding floors
- Suitable for laying ceramic tiles, porcelain tiles, natural stone, and hardwood floors using adhesives

ECO NOTES

- Formulated with locally-sourced minerals meaning lower greenhouse gas emission during transportation
- Contains recycled minerals thereby reducing the damage to the environment caused by extracting pure raw materials
- Can be recycled as mineral inert material, avoiding waste disposal costs and environmental impact

AREAS OF USE

Use
Normal-setting, rapid-drying interior and exterior screeds adhering to the substrate (thickness ≥ 20 mm) and floating screeds (thickness ≥ 50 mm); underfloor heating systems (thickness above the pipe ≥ 30 mm). Maximum thickness 80 mm.

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

Covering materials:
- homogeneous tiles, ceramic 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

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

Do not use
- on deformable surfaces, without having previously calculated their degree of flexure and having provided for the necessary fractionizing joints in the screed
- in adherence on concrete castings which have not yet fully cured

* 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).

Massetto Premix Code: F1092 2019/07-EN

KERAKOLL
The GreenBuilding Company

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 prepared with 2.5 parts 32.5/42.5 cement, 1 part Keraplast Eco P6 eco-friendly water-based latex and 1 part water, wet-on-wet.
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 indispensable 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: in the case of lightened, low-density substrates or in the presence of even thin layers of heat and sound-insulating materials, the thickness of the screed and any reinforcements must be calculated according to the deformability class of said materials.

Preparation
Massetto Premix is mixed with clean water using the most common site equipment such as standard concrete mixer, cement mixer trucks, pressure mixers, continuous screw mixers and using the mixing ratio of mixing water indicated until a semi-dry, compact consistency without any appearance of surface water is obtained. When working at temperatures close to 0 °C it is advisable to protect the bags of Massetto Premix from night-time frost and to use hot water to improve mixing, transportation, pumping and workability of the mixture. On the contrary, in the case of high temperatures it is essential that the bags of Massetto Premix be stored in the shade and that cold water be used.

Application
Massetto Premix is applied in a safe, practical way using the traditional methods for cement-based screed: preparation of levelling layers, casting and compacting of the mix and flattening; it is highly recommended to apply the final smoothing with mechanical means equipped with a steel disk, taking care not to excessively insist so as to avoid the creation of a low-absorption surface crust that tends to lengthen the screed drying time and worsen the performance of the adhesive.
The compacting phase is of particular importance in order to achieve the highest mechanical performance; it must be carried out immediately after the screed is laid on the substrate, and before the surface is smoothed with a metal flattener. In the case of high thicknesses, compacting must be carried out in successive layers until the required thickness is obtained. In points where tubing is installed, where the screed might be less thick (minimum 3 cm), insert a galvanized metal mesh with 2 – 3 cm mesh size. At points in which new layers are to be started following interruptions in work, a connection must be made between the two casting layers by inserting Ø 5 iron rods of length ≈ 50 cm at a distance of ≈ 20 – 30 cm from each other, or using a section of electrowelded mesh (Ø 5 mm, 20x20 cm) and applying a slurry key prepared with 2.5 parts 32.5/42.5 cement, 1 part Keraplast Eco P6 eco-friendly water-based latex and 1 part water on the wall of the casting before continuing work.

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

SPECIAL NOTES

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 m^2 with 6 m maximum individual size, in case of external screeds
  50 m^2 with 8 m maximum individual size, in case of internal screeds (40 m^2 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 electrical hygrometers are not recommended, as they provide inconsistent and incorrect values due to the special binders used.
Laying hardwood floors: check on-site the suitability of the cured screed as indicated in the UNI 11371 standard; if necessary, consolidate with EP21. In the case of large format and/or unstable hardwood floors, contact the Kerakoll Worldwide Global Service.
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).

Massetto Premix Code: F1092 2019/07-EN

ABSTRACT

The high-performance screed or heat-radiant slab will be made of ready-to-use, eco-friendly, normal-setting and rapid-drying mineral screed, complying with standard EN 13813 class CT-C16-F4, GreenBuilding Rating® 5, such as Massetto Premix by Kerakoll Spa, with an average thickness of ____ cm, suitable for adhesive laying of tiles after 24 hrs and of hardwood floors 5 days after application. Including supply and installation of deformable expanded polyethylene bands for desolidarisation joints.

TECHNICAL DATA COMPLIANT WITH KERAKOLL QUALITY STANDARD

Appearance	mixture of binders and aggregates	
Apparent volumetric mass	≈ 1,56 kg/dm³	UEAtc/CSTB 2435
Mineralogical nature of inert material	silicate - crystalline carbonate	
Grading	≈ 0 – 3 mm	UNI 10111
Shelf life	≈ 12 months in the original packaging in dry environment	
Pack	25 kg bags	
Mixing water	≈ 1.75 ℓ / 1 bag 25 kg	
Specific weight of the mixture	≈ 1,96 kg/dm³	UNI 7121
Pot life	≥ 3 hrs	
Temperature range for application	from +5 °C to +35 °C	
Floating screed thicknesses	from 50 mm to 80 mm	
Thicknesses of the adherent screed	from 20 mm to 80 mm	
Foot traffic	≈ 8 hrs	
Waiting time before laying (thickness 5 cm):		
- ceramic tiles	≈ 24 hrs	
- hardwood floors	≈ 7 days	
Coverage	≈ 18 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.

PERFORMANCE

VOC INDOOR AIR QUALITY (IAQ) - VOLATILE ORGANIC COMPOUND EMISSIONS		
Conformity	EC 1 plus GEV-Emicode	GEV certified 9523/11.01.02
HIGH-TECH		
Resistance to:		
- compressive after 7 days	≥ 14,5 N/mm²	EN 13892-2
- compressive strength after 28 days	≥ 16 N/mm²	EN 13892-2
- flexural after 28 days	≥ 4 N/mm²	EN 13892-2
Residual moisture (thickness 5 cm):		
- after 24 hrs	≤ 3%	
- after 7 days	≤ 2%	
Conformity	CT – C16 – F4	EN 13813

Values taken at +20 °C, 65% 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
- check the product suitability for the expected loads
- do not add other binders, additives or inert materials to the mixture
- low temperatures and high relative humidity lengthen the drying time of the screed
- an excessive quantity of water reduces mechanical resistance and the rapidity of drying
- before laying hardwood floors and resilient materials, check residual moisture with a calcium carbide hygrometer
- do not add water to Massetto Premix during the setting phase
- 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 particular substrates and for any other issues, contact the Kerakoll Worldwide Global Service 0536.811.516 – globalservice@kerakoll.com

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