



MASSETTO COMPACT

Fibre-reinforced
cement based screed
with high thermal conductivity
for covering underfloor heating



konstruktive • **leidenschaft**



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PRODUCT DESCRIPTION

MASSETTO COMPACT is a ready to use fibre-reinforced cementitious screed for heated flooring with high thermal conductivity, normal setting and drying time, controlled shrinkage and good mechanical resistance.

The product is specific for residential use to cover underfloor heating and cooling systems. Its special formulation optimizes the transmission of heat generated by the heating system in indoor environments. The product is also suitable for outdoor use under ceramic tiles, terracotta, natural stone, hardwood, resilient materials and decorative flooring systems. The product can be applied manually, with a continuous mixer or with traditional screed pumps.

COMPOSITION

MASSETTO COMPACT is a premixed screed based on special hydraulic binders, calcareous and siliceous aggregates selected and gauged according to specific grading curve, fibres and special additives that improve the product in terms of workability, heat radiation, adhesion and shrinkage control.

MIXING AND APPLICATION

SEAL TEST OF THE FLOOR HEATING SYSTEM (ref. EN 1264-4)

Before applying the screed layer, the heating/cooling circuits must be seal tested via a pressure test with water or air, no less than 4 bar and not exceeding 6 bar to make sure there are no leaks. When applying the **MASSETTO COMPACT** layer, this pressure must be applied to the pipes.

Before applying the lightweight screed, it is necessary to isolate the vertical elements by applying the **COMPRIMIBILE PERIMETRALE** strip for the whole area of the screed. Any structural joints present must also be maintained throughout the screed.

MIXING

Prepare the product by adding 2.5-3.0 litres approx. of clean water per 25 kg bag in a cement mixer. Pour the correct amount of water into the mixer and then add the powder. Mix the product for about 2'-3' minutes until smooth and free of lumps. **MASSETTO COMPACT** does not require the addition of liquid additives for installation directly to heating/cooling floor systems. Apply the product as a traditional screed, preparing the level guides and spreading the mixture. Compact and trowel the mixture until the surface is smooth and coplanar. Apply a thickness of at least 30 mm to the heating/cooling floor system, as required by the regulation EN 1264.

INITIAL START-UP OF THE HEATING (ref. EN 1264-4)

Must be carried out at least 21 days after the installation of **MASSETTO COMPACT**.

The ignition cycle must be done with the heating system set to a minimum and then increase the temperature by 5°C per day until the maximum required heat is reached, which must be maintained for at least 5 days. Then proceed backwards decreasing by 5°C per day until it room temperature is reached.

The screed, subjected to such a cycle, may show some cracks that must be properly sealed before applying the flooring.





ADHERENT SCREEDS

When laying screeds with variable thickness or however less than 35 mm, first apply on the clean base an adhesive grout composed by 1 part in weight of **MASSETTO COMPACT**, 1 part in weight of **VIMARLATEX 883** and 1 part in weight of clean water. Spread a uniform and continuous layer of grout with a brush or trowel and then lay the screed with the "wet on wet" technique. Apply any level marker strips directly to the grout.

Apply **MASSETTO COMPACT** as a traditional screed, which is compacted, struck off and finished by floating or mechanical machines, to obtain a coplanar and smooth surface. The use of reinforced fibreglass or metallic mesh in the screed is recommended.

FLOATING SCREEDS

To a floating screed lay a separating layer, consisting of polyethylene sheets or PVC over lapping each other for at least 20 cm and seal properly. Fold back the vapour barrier on the perimeter for the entire thickness of the screed and then place the **COMPRIMIBILE PERIMETRALE** strip at least 30-50 mm above the height of the screed.

In the presence of rising damp, apply a separating layer using an appropriate impermeable membrane. Apply **MASSETTO COMPACT** as a traditional screed, which is compacted, struck off and finished by floating or mechanical machines, to obtain a coplanar and smooth surface. The use of reinforced fibreglass or metallic mesh in the screed is recommended. If the screed casting is interrupted, insert stainless steel bars (length 20-30 cm, diameter 3-6 mm) in correspondence of appropriate cuts, in order to ensure a perfect junction between jets, and to reduce cracks and gaps between different levels.

SCREEDS ON LIGHTENED SUBSTRATES AND COMPRESSIBLE MATERIALS

When laying screeds on low-density lightened substrates, or on thin compressible materials, the thickness and any possible reinforcement for the concrete must be calculated according to the class of deformability of the lightened substrates.

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INDICATIVE AMOUNTS REQUIRED

20.0 kg per m² per cm of thickness.

COLOUR

Grey.

PACKAGING

25 kg bags on disposable 1575 kg pallet (63 bags) protected by waterproof plastic wrap.

STORAGE

6 months in original intact packaging and stored in a dry place.

RECOMMENDATIONS

Do not apply the product in temperatures below + 5°C or above + 35°C. Low temperatures and high humidity may affect drying time of the product. Test the heating system pipes before apply screed. Avoid applying to frozen, dusty, unstable and inconsistent surfaces.





Do not add water to the product during the gripping phase. Always check the residual moisture of the screed before covering with tiles etc. Do not wet screed applied and protect surfaces from direct sun contact, rain and frost for the first 24 hours. Apply separation joints in correspondence to doorframes, openings or in the case of large areas over 40 m² and no longer than 8 m. Do not use on substrates subject to rising damp without applying a necessary barrier or waterproofing seal. Do not add more binders to product once it is ready for use.

PRODUCT DATA

Appearance	powder	
Colour	grey	
Powder volume mass	~ 1600 kg/m ³	EN 1015-10
Maximum aggregate size	≤ 2.5 mm	

APPLICATION DATA

Water content of mix	10-12%	
Mixture ratio	1 bag + 2.5-3.0 l of water	
Density of fresh mortar	~ 1800 kg/m ³	EN 1015-6
Minimum application temperature	+ 5°C	
Maximum application temperature	+ 35°C	
Pot life mixture	> 60' minutes	EN 1015-9
Minimum applying thickness	≥ 30 mm (for underfloor heating/cooling systems)	
Set to foot traffic	> 24 ore (depending on weather conditions)	
Time before laying ceramic flooring	> 7 days*	
Time before laying parquet flooring	> 28 days*	

* before laying the coatings always test the residual humidity using a Calcium Carbide hygrometer.

PERFORMANCE DATA

Thermal conductivity	1,35 W/mK (tab. mean value; P=50%)	EN 1745
Compressive strength	≥ 30.0 N/mm ² C30	EN 13892-2
Flexural strength	≥ 5.0 N/mm ² F5	EN 13892-2
Reaction to fire	A1 _{fl} Class	EN 13501-1
Böhme abrasive strength	NPD	EN 13892-3
Release of corrosive substances	CT	EN 13892-2
Water permeability	NPD	EN 1062-3
Vapour permeability	NPD	EN 12086
Sound insulation	NPD	EN ISO 140-6
Sound adsorption	NPD	EN 12354-6
Thermal resistance	NPD	EN 12524
Chemical resistance	NPD	EN 13529

ACCORDING TO



EN 13813:2002
Cementitious screed material for internal use
CT-C30-F5

REMARKS

Product for professional use. The data and instructions in this data sheet are based on our best practical and laboratory experience. They refer to laboratory tests and should be considered indicative. In view of the different conditions of use and application, which depend on factors over which Vimark has no control (type of surface, environmental conditions, technical indications for fixing, etc.), those who use the product are responsible for ascertaining whether or not it is suitable for the intended purpose. Thus our warranty obligation merely covers the quality and fade-free characteristics of the actual product, and exclusively in relation to the aforementioned data. Vimark reserves the right to make technical modifications without prior notice. This technical data sheet voids and substitutes all previous editions. Updates will be published on the web site www.vimark.com.

