INTOCALCE MAS PLUS

BIO-SCREED ECO-FRIEDNLY BASED ON NATURAL HYDRAULIQUE LIME NHL FIBRE-REINFORCED HITH AN HIGH THERMAL CONDUCTIVITY FOR UNDERFLOOR HEATING SYSTEMS AND FOR THE SUBSTRATE OF FAST-DRYING FLOORS WITH INCREASED SLIP RESISTANCE
Compliant with UNI EN 13813

DESCRIPTION

INTOCALCE MAS PLUS is an eco-friendly premixed bio-mortar, fibre-reinforced, with amorphous stainless steel fibres, based on natural hydraulic lime NHL according to EN 459-1, with high thermal conductivity, compensated shrinkage, fast drying and increased sliding at a high and constant quality level, produced with a computerised system, for the production of screeds on underfloor heating systems and substrate screeds in interiors. The characteristics of natural hydraulic lime NHL are such as to ensure a very slow and constant hydraulic hardening that allows to obtain screeds with high durability and breathability. It does not form vapour barriers and does not contain solvents. Recyclable as inert at the end of its life. Specific for historical and conservative restoration, thanks to the natural origin of its components that respect the nature of the original materials of the structures of historical interest.

COMPOSITION

Natural hydraulic lime NHL 3,5 according to EN 459-1 obtained by firing marly limestones at 950°C, cement free, amorphous metal fibres stainless, limestone aggregates selected in a suitably recomposed curve with a grain size from 0 to 3 mm, additives tested for their specific use that give the product very high adhesion and workability characteristics.

CHARACTERISTICS

A careful and selective selection of the raw materials, conducted to a perfect granulometric curve, thanks to the use of our own crushing plants, produce, with the addition of water only, an exceptionally plastic and easily workable mortar. Used as a screed, it is applied directly to any internal surface as long as it is stable and not subject to capillary rising. It does not crack, does not detach and is breathable and impact-resistant. It is the ideal base for all types of flooring.

USE

INTOCALCE MAS PLUS is an eco-compatible bio-mortar with compensated shrinkage, quick and controlled drying, ideal for the production by hand or by machine of subfloor screeds to be applied directly on any internal surface as long as it is stable and not subject to capillary rising, suitable for receiving the subsequent application of any flooring such as ceramics after 4 days, natural stones after 8 days, parquets and resilient floors after 10 days; specific for the realization of screeds with the insertion of underfloor heating thanks to the addition of additives that facilitate the flow between the tubes and amorphous stainless metal fibers that give a high thermal conductivity and floating screeds on a resilient mattress for the soundproofing of noise from footsteps.

SUBSTRATES

Anchored screed

Check that the support is resistant and has a r.h. < 2%.
Preparation of the substrates by removing all the crumbling and inconsistent parts; eliminating foreign bodies, such as dust, mud, bitumen, oil stains, etc..
Apply a strip of compressible material with a thickness between 4 and 8 mm along the perimeter walls.
Apply anchor grout, consisting of 1 part by volume of latex INTOSIL, 1 part of water.
Apply the grout with a brush or broom. Lay the scrred INTOCALCE MAS PLUS fresh on fresh.
For thicknesses between 2 and 3cm mix INTOCALCE MAS PLUS with water and latex INTOSIL in a ratio of 1 to 4

Floating screed

Check that the support is resistant and has a r.h. < 2%.
Apply a strip of compressible material with a thickness of between 4 and 8 mm along the perimeter walls.
Spread waterproof sheets (in polyethylene, PVC, etc.) over the entire surface, making sure to overlap the sheets in the joints by at least 25 cm and on the walls, overcoming the compressible tape by at least 2 cm.

INTOCALCE MAS PLUS

MINIM. THICKNESS OF APPLICATION

Anchored screed	cm 3
Floating screed	cm 4
Screed on underfloor heating	cm 3 above the embossing
Floating screed on insulating mats >6mm	cm 5

APPLICATION

- Take special care in the preparation of the substrate by removing cracks and, if necessary, carry out sunbathing and waterproofing.
- For floors in contact with the ground, waterproof the substrate with a sheath.
- To be mixed in a concrete mixer or with a pressure or manual pump; with a continuous mixer, adjusting the flowmeter up to the optimal density.
- The dough must have the consistency of moist earth.
- Perform level guides.
- To prop up and compact up to the desired level.
- In case of application on insulating panels, we recommend inserting 4x4 cm mesh in the MALVIN NET 4.4 certified ETAG 004 glass fibre mesh screed, weighing 130 g/mq, taking care to keep it lifted from the substrate so that it is inserted in the first/third of the screed.
- Prepare the screed divisions in correspondence of thresholds, doors or protrusions and in any case the length/width ratio of the rooms exceeds the value of 3 and also in the case of irregular surfaces.
- Can be made without the use of mesh or joints, squares with a regular shape not exceeding 100 mq.
- In the case of application on acoustic insulating mats over 6 mm, the minimum thickness to be achieved must not be less than 5 cm.
- When shooting jet always insert MALVIN NET 4.4 fiberglass mesh certified ETAG 004 mesh 4x4 cm, weighing 130 gr /mq.
- In the presence of ducts, pipes and large depressions, insert 4.4 cm 4x4 mesh ETAG 004 certified glass fibre net into the MALVIN NET screed, weighing 130 g/sqm.
- For underfloor heating systems, we recommend inserting 4x4 cm mesh in the MALVIN NET 4.4 ETAG 004 certified glass fibre mesh, weighing 130 g/sqm, taking care to fix it to the insulation panels and interrupting it at the expansion joints at doors and thresholds and in any case so that the area of a single jet does not exceed 40 mq.
- In case of high temperatures, wind and low humidity, it is advisable to protect from rapid drying by moistening the substrates.
- Protect the screed for at least 48 hours against wind, sun and rain.
- Do not apply on frozen substrates, during thawing or in danger of frost within 24 hours.
- Non applicare in pieno sole o con forte vento.
- Do not apply on fresh application substrates.
- Do not apply on inconsistent and brittle substrates.
- Do not apply in the presence of driving rain.
- Don't apply outside.
- Not suitable for fresh laying of ceramics, terracotta, etc.
- Don't add any other material to the product.
- INTOCALCE MAS PLUS must be worked at a temperature between + 5 ° C and + 30 ° C.
- Finish the screed with a trowel or rotary disc machine.
- It is recommended to use adhesives with good elasticity for the laying of ceramic floors.
- Pedestrability24/48 hours.
- Dry after 10 days for laying parquet, resilient floors such as linoleum, rubber, PVC, etc. and in any case only after making sure that the humidity of the screed is less than 2%.
- Suitable for receiving ceramics after 4 days and natural stones after 8 days.

INTOCALCE MAS PLUS

For screeds with underfloor heating, before laying the floor, and after at least 10 days of maturation of the screed, bring the flow temperature of the system to 20/25 ° C maintaining it for at least 3 days, then increase the temperature gradually and slowly up to the maximum temperature of the project keeping it for at least 4 days, at the end of the cycle and after cooling to room temperature, proceed with the laying of the floor on the screed.
Overlapping times refer to screeds with thicknesses of 4 cm, increase the overlapping times by 7 days for each centimetre exceeding 4 cm.

YIELD
18/20 kg/mq for each cm of thickness depending on the degree of constipation.

PACKAGING
Bulk in drop silo.
In multilayer paper bags with protective film kg 25 on wood pallets of 17,50 ql. (70 bags).

TECHNICAL DATA ACCORDING TO UNI EN 13813-2002

Mixing water	6,5/8,5 % (Up to moist earth consistency)
Grain size EN 1015-1	≤ 3 mm
Specific weigth ± 10% EN 1015-10	2.000 kg/m^3
Workability time EN 1015-9	60 minutes
Compressive strength at 28 days EN 13892-2	20 N/mm^2 (C20)
Flexural strength at 28 days EN 13892-2	5 N/mm^2 (F5)
Residual humidity at 28 days	1,7%
Fire reaction EN 13813	Class "A1fl"
Thermal conductivity EN 13813 p.to.5.3.7	λ=2,03 W/mK
Durability	NPD
Attenuation of the level of footsteps (ΔLnw):	dB 15
Harmfulness - Regulation CE 1272/08	Danger
Classification UNI EN 13813	CT-C20- F5/DOP nr. 304

SUMMARY:
The indoor screeds, the screeds on underfloor heating, the floating screeds on resilient mattress for the soundproofing of footfall noise, will be made with bio-mortar eco-friendly premixed screed, fiber-reinforced with amorphous metal fibers stainless, high thermal conductivity shrinkage compensated, rapid drying, increased flow and controlled drying based on natural hydraulic lime NHL 3.5 , according to EN 459-1 obtained by cooking marly limestone at 950°C, cement free, such as "INTOCALCE MAS PLUS" by MALVIN S.r.l., applied by hand or machine and to be mixed with just the addition of water, with a consumption of 18/20 kg/sqm per cm of thickness depending on the degree of compaction and with classification EN 13813 - CT-C20-F5 and thermal conductivity EN 13813 p.to.5.3.7 λ=2,03W/mK.

Le caratteristiche prestazionali riportate si riferiscono a prove di laboratorio, i valori possono subire scostamenti in funzione delle condizioni climatiche e modalità di messa in opera. L'utilizzatore deve verificare l'idoneità del prodotto all'impiego previsto.

MALVIN
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