

INTOCALCE CT



ECO-FRIENDLY BIO-MORTAR FIBER REINFORCED CLASS M15 BASED ON NATURAL HYDRAULIC LIME NHL 5 FOR POURABLE STRUCTURAL MORTARS AND WATER REPELLENT TYPE "I"

Compliant with UNI EN 998-2

DESCRIPTION

It is an eco-friendly bio-mortar with an high resistance pourable fiber reinforced with a special composition of polypropylene fibers, specific for the reinforcement, based on natural hydraulic lime NHL 5 compliant with EN 459-1 and metakaolins, for the reinforcement of ancient masonries, embedding and reinforced concrete in formworks, with an high and constant quality level, produced with an automated system, to apply by hand or mechanically. The features of the natural hydraulic lime NHL ensure an hydraulic hardening very slow and constant that allows to obtain mortars with an high durability, the addition of meta kaolin combined with an appropriate grading curve, improves and enhances the structural performance. Contains no solvents, recyclable as inert at the end of life. Specific for the historical conservative restoration, thanks to the natural origins of its components that respect the nature of the original materials of the structures of historical interest. Available water repellent type "I".

COMPOSITION

Natural hydraulic lime NHL 5 compliant with EN 459-1 obtained by burning marbly limestones at 950°C, natural lime, metakaolins, selected carbonated and siliceous sands with a grading from 0 to 1,3 mm, polypropylene fibers, natural additives tested for the specific use which give to the product a very high fluidity and workability. For type "I" water repellent agent.

AVIABILITY:

INTOCALCE CT:

Embedding and concretes;

INTOCALCE CT I:

Embedding and water repellent concretes;

FEATURES

An accurate and selective choice of the main materials made with a perfect grading curve thanks to the use of our own crush system, produce just adding water a mortar very fluid and easily workable. Used as pourable mortar can be applied in very kind of formwork even small and with a considerable thickening of the frames. Fibers give to the hardened mortar more ductility and resistance to the aggressive agents and to the thermal excursions, improve the distribution of the stresses and reduce micro cracks produced by external stresses thanks to the formation of a structural internal reticule, give more resistance to the vibrations so it is perfect for masonry buildings under stresses caused to the proximity with roads, railways, etc. For the type "I" the addition of the water-repellent agent makes it particularly suitable to walls exposed to driving rain.

USE

INTOCALCE CT is an eco-friendly bio-mortar pourable with an high resistance specific for the reinforcement of ancient masonry structures, embedding and reinforced concretes in formworks.

In the case of application such as concrete for thicknesses exceeding 7 / 8cm, it is necessary to mix the mortar with aggregates (gravel and/or grit with a grading from 4 to 10/15 mm) on the 35% on the weight of the dry mortar, and water depending of the fluidity required.



YIELD

17/18 kg/mq for each cm of thickness.

PACKAGING

Loose in silo (gravity feed).

Multi-ply paper sacks with protection of Kg. 25 on wood pallets of 17,50 ql. (70 sacks).

TECHNICAL SPECIFICATIONS COMPLIANT WITH UNI EN 998-2

Water content of the mix

~15-16%

Grading EN 1015-1

≤ 3,0 mm

Specific weight EN 1015-10

1.600 kg/m³ ± 5%

Workability time EN 1015-9

1 hour

Content of chlorides EN 1015-17

< 0,1 % p/p

Plastic shrinkage in cond. Termoigr. Standard

Absent

Compressive strength after 28 days EN 1015-11

≥ 17,5 N/mm² (M15)

Initial adhesion (tabulated value) EN 998-2

0,15 N/mm²

Adhesion on brick

0,5 N/mm²

Water vapor diffusion resistance factor EN 1015-19

15 < μ < 35

Water absorption coeff. due to capillary action EN 1015-18

0,55 Kg/(m² • min^{0,5})

TYPE "I"

≤ 0,40 Kg/(m² • min^{0,5})

Fire reaction EN 998-2

Class "A1"

Thermal conductivity coefficient EN 1745 p.A.12

λ_{10,dry,mat} = 0,67 W/mK

Durability

NPD

Toxicity - Regulation CE 1272/08

Danger

Classification UNI EN 998-2:2010*

G-M15/DOP nr. 85

Classification UNI EN 998-2:2010* TYPE "I"

G-M15/DOP nr. 86

* at guaranteed performance (2+)

SUMMARY

The structural reinforcement by casting of old masonries and of damaged vaults, will be realized with eco-friendly bio-mortar with an high resistance fiber reinforced with a special composition of polypropylene fibers, based on natural hydraulic lime NHL 5 compliant with EN 459-1 obtained by burning marbly limestones at 950°C, metakaolins, selected carbonated and siliceous sands with grading from 0 to 1,3 mm, polypropylene fibers, natural additives tested for the specific use, water repellent agent for type "I", type "INTOCALCE CT" or water repellent type "I" by MALVIN S.r.l., to mix just adding water, with a consumption of 17/18 kg/mq for cm of thickness, with a compressive strength after 28 days of 17,5 N/mm².

The performance characteristics refer to laboratory tests, values depend on the weather conditions and on the methods of implementations. The operator must verify the suitability of the product depending on the use planned.



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