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Uw partner in restauratie en renovatie
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RC NHL GROUT

INJECTION MORTAR BASED ON NATURAL HYDRAULIC LIME NHL 5

Lime products

ADVANTAGES OF RC NHL GROUT

- ✓ Based on natural hydraulic lime Saint-Astier® NHL 5 (cfr. EN 459-1)
- ✓ Without any addition of pozzolans, blast-furnace slag, fly ash or other hydraulic binders (cement, clinker, …)
- ✓ Highly vapour-permeable and moisture-regulating
- ✓ For filling cracks and voids in masonry, particularly in monumental and historic buildings
- ✓ Free of chlorides, sulphates, VOCs and organic substances (does not attack iron)
- ✓ 100% natural and environmentally friendly

Description

RC NHL GROUT is an injection mortar based on natural hydraulic lime NHL 5, without addition of cement, pozzolans or other hydraulic binders. Developed for filling cracks and voids in masonry, particularly in monumental and historic buildings. RC NHL GROUT can be applied by gravity or by means of a low-pressure pump.

RC NHL GROUT can be applied pure or with very fine aggregate, depending on the size of the voids. Thanks to its excellent properties, it achieves high fluidity and good consolidation with the substrate.

Field of application

RC NHL GROUT is particularly suitable for the restoration of historic buildings and applications such as:

- Strengthening of foundations, columns, vaults and arches
- Strengthening of masonry made of stone, brick, tuff and mixed stone in existing buildings
- Strengthening of masonry affected by rising damp and soluble salts
- Stabilisation or anchoring of masonry
- Injecting or “grouting” cracks, fissures and cavities in walls

Substrate

A series of injection holes is distributed over the zone to be injected, with spacing and opening size depending on the mass to be injected, the injection mortar and the working pressure. The injection holes are staggered so that successive holes are not directly above one another in height. Prior to injecting the mortar, the injection holes are cleaned and moistened with clean water.

- Ensure that all joints are closed so that the injection mortar does not run out of the joints.
- Drill holes of 20 to 30 mm diameter at an angle of 45°, to a depth of 90% of the wall thickness, over the full length of the wall.
- Moisten the voids to be injected the evening before to reduce the suction capacity of the masonry.

Instructions for use

Mixing ratios

	Volume grout : sand	
100 % RC NHL GROUT + water		15 kg RC NHL GROUT + 12 tot 14 L water
RC NHL GROUT + sand + water	(1.6 : 1)	15 kg RC NHL GROUT + 15 kg sand + 5 tot 7 L water
RC NHL GROUT + sand + water	(4.8 : 1)	15 kg RC NHL GROUT + 5 kg sand + 8 tot 10 L water

** In the above table, a sand density of 1.6 kg/L has been used.*

The filler material (sand) used can vary from 0 to 500 µm (M34) for fine injections, or from 0 to 4 mm (masonry sand) for filling large voids. As a rule of thumb, the sand grain size should on average be 3 to 4 times smaller than the void or crack to be filled.

- Throughout the entire duration of the works, the same mixing ratios and mixing times as applied at the start must be followed.
- The entire mix must be used in one go; do not reuse with a new mix.
- Do not add other products.
- The mix must be processed within one hour.
- Mix mechanically with a hand mixer for 2 to 4 minutes. When using a concrete mixer, max. 5 minutes.
- The addition of water also depends on the porosity of the substrate.
- The mortar is injected manually or mechanically.

Consumption

15 kg RC NHL GROUT + water = 17 litres of mortar

Technical characteristics

	RC NHL GROUT + water	1 kg RC NHL GROUT +1 kg sand + water	1 kg RC NHL GROUT + 0,333 kg sand + water
Compressive strength 28 days	1.00 N/mm²	6.00 N/mm²	2.00 N/mm²
Compressive strength 90 days	2.00 N/mm²	8.00 N/mm²	3.00 N/mm²
Flexural strength 28 days	0.02 N/mm²	1.80 N/mm²	0.06 N/mm²
Flexural strength 90 days	0.02 N/mm²	2.00 N/mm²	1.10 N/mm²
Bulk density 28 days	960 kg/m³	1710 kg/m³	1280 kg/m³
Bulk density 90 days	990 kg/m³	1810 kg/m³	1310 kg/m³
Initial setting (EN 196-3)	16 h 50 min	2 h 00 min	7 h 40 min

Safety

Always consult the most recent Safety Data Sheet (SDS).

It is recommended to always wear gloves, a dust mask and safety goggles during mixing.

Remark

The quality of the lime mortar is guaranteed by its strictly natural origin. The addition of any amount of cement compromises these properties.
Moisten the voids to be injected the evening before to reduce the suction capacity of the masonry.

Cleaning

Thoroughly clean with water after use.

Storage / Shelf life

12 months from date of production, protected from moisture and in unopened original packaging.

Packaging

Bags of 15 kg (art. S10321) – 60 bags/pallet.

Photos