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RC ASTIVO

COLOURED NATURAL HYDRAULIC LIME (NHL 3.5) MORTARS FOR POINTING

Natural lime mortars & pointing mortar

ADVANTAGES OF RC ASTIVO

- ✓ More flexible than cement-based mortars
- ✓ Reduced frost sensitivity
- ✓ Excellent vapour permeability
- ✓ Based on natural hydraulic lime NHL 3.5 from Saint-Astier

Description

RC ASTIVO is a pre-dosed binder based on natural hydraulic lime (NHL 3.5), used to produce pointing mortar in accordance with EN 459-1. Lime mortars used for pointing are generally softer and more porous than cement-based mortars, allowing moisture to evaporate more freely from the masonry. This helps to reduce moisture accumulation within walls and limits the migration of soluble salts to the surface, thereby reducing the risk of surface damage such as spalling. Natural hydraulic lime (NHL) mortars offer significant advantages over cement-based mortars, particularly in restoration and sustainable construction.

Properties

- Elasticity and flexibility

Compared to cement or bastard mortars, RC ASTIVO is significantly more elastic and flexible. This is crucial in absorbing small structural movements and minimizing shrinkage and cracking.

- Permeability and moisture regulation

RC ASTIVO provides excellent vapour permeability, allowing moisture to escape from the wall and thus preventing condensation, mould growth, and damp issues. This enhances the overall indoor comfort and contributes to a healthier indoor environment. It also provides modestly improved thermal performance compared to dense cement mortars.

- Mechanical strength

The mechanical strength of lime mortars develops gradually. NHL 3.5 reacts initially with water and then continues to harden through carbonation (reaction with atmospheric CO_2). This allows the mortar to accommodate settlement in the structure. The free lime within the mix continues to carbonate over time, giving the mortar self-healing properties, as minor cracks are naturally sealed over time.

Preparation of masonry

Ensure the substrate is sound, clean and free from dust or loose particles. Damaged or deteriorated bricks should be replaced. Existing defective joints must be carefully raked out to a depth of approximately 1.5 times the joint width, with a minimum of 20 mm. The bond faces of the joint should have a square profile and a rough surface for good adhesion. Use non-aggressive tools, such as diamond blades, to create a central relief cut and then remove remaining mortar with a narrow chisel.

After raking out, brush joints thoroughly or clean them using low-pressure water with a flat spray nozzle. Ensure that the masonry is not saturated but only damp before repointing. This reduces the risk of lime bloom (efflorescence). The mortar should be applied as dry as practicable while remaining workable. This maximises compaction, reduces shrinkage, and limits staining of the masonry surface.

Preparation of the mortar:

The standard mixing ratio of RC ASTIVO with dune sand is 1 part to 2 parts by volume. In other words, mix 1 bag of 12.5 kg RC ASTIVO with approximately 50 kg of dune sand. Depending on the moisture content of the sand, add water until a workable and homogeneous pointing mortar is obtained. Mixing time in a concrete mixer is approximately 5 minutes. When using a mechanical mixer, it is recommended to mix at low speed in order to obtain a dense and homogeneous consistency.

Application instructions

Always work from the top downwards to avoid staining finished work. Use appropriate jointing tools and press the mortar firmly into the joints. For joints deeper than 20 mm, a first infill (dubbing out) layer is recommended to avoid shrinkage and slumping. When the mortar reaches a "green hard" state — firm enough to brush without smearing but still workable — the joints should be finished using a churn brush. This removes surface laitance (lime bloom) and enhances the colour depth of the mortar, improving the aesthetic result.

Freshly applied mortar must be protected from direct sunlight, rain and wind. In cold conditions, protection against frost is essential. The use of lime mortar during freezing temperatures is strongly discouraged due to the risk of frost damage during curing.

Consumption

Average consumption: +/- 10 kg mortar/m²

Can vary between 7 to 15 kg/m², depending on the width and depth of the joints and the size of the stone.

RC ASTIVO/ sand ratio 0/2 (by volume)	1 : 1	1 : 2	1 : 2,5	1 : 3
	fine joints	standard joints		soft masonry
RC ASTIVO + 0/2 sand	12.5 kg + 25 kg	12.5 kg + 50 kg	12.5 kg + 62,5 kg	12.5 kg + 75 kg
Total mortar	37.5 kg	62.5 kg	75 kg	87.5 kg
Yield per 12.5 kg bag of RC ASTIVO				
Minimum consumption +/- 7 kg/m²	5.4 m²	8.9 m²	10.7 m²	12.5 m²
Average consumption +/- 10 kg/m²	3.75 m²	6.25 m²	7.5 m²	8.75 m²
Maximum consumption +/- 15 kg/m²	2.5 m²	4.17 m²	5 m²	5.83 m²

** Values are based on standard 0/2 dune sand (± 1.6 kg/dm³) and rounded for site use.*

Technical characteristics

Binding agent	100% natural, hydraulic lime NHL 3.5
Presence of cement	None
Delivery form	Powder
Density	0.8 kg/dm³
Pigments	Mineral pigments
Organic additives	Less than 0.3%

Test results according to EN-459 on RC ASTIVO

Ratio RC ASTIVO/sand	1:2	1:2.5	1:3
Start of hardening (hours)	5.3	6	6
Elasticity modulus (N/mm²)			
28 days	9010	9000	8970
6 months	16250	13505	12450
24 months	17480	13785	13670
Compressive strength (Mpa)			
7 days	0.75	0.57	0.53
28 days	1.88	1.47	1.34
12 months	7.48	5.89	3.89
24 months	8.62	5.99	3.96
Water vapor permeability			
g/m²/h/mmHg	0.62	0.64	0.70

Colours

RC ASTIVO is available in **10 standard colours** (see our website).
Our samples are made with dune sand 0/2 (M31).

NOTE: the colour may vary slightly due to the use of different types of fillers.

The colors in the image may differ from the actual colors of the product and of the sand that is used

Security

Consult the most recent safety data sheet. Lime is alkaline and may cause irritation. Always wear eye protection and protective gloves and clothing and follow the safety instructions on the labels.

Remarks

- Product for professionals.
- Protect the fresh mortar against water, wind, sun, drift water and fog, using a windscreen. Moisten the mortar again after curing.
- Do not apply on a frozen substrate or when there is a risk of frost. Minimum temperature for application: +5°C for light colors, +8°C for dark colors. Above 30°C special measures must be taken.

Cleaning of equipment

With water immediately after use.

Storage / Shelf life

- Keep only in the original container in a cool, well-ventilated place. Opened containers must be closed and stored upright to prevent leakage.
- 1 year after manufacturing in original, closed packaging.

Packaging

12.5 kg bag

Photos