



# MORCEM® CAL ESTRUCTURAL

Mortar for construction and coating with high mechanical resistance, natural hydraulic lime. Natural composition, highly breathable



## DESCRIPTION

Mortar for construction and cladding, for reinforcing reinforced cladding and masonry fill, fibre-reinforced, made of natural hydraulic lime. Natural composition, breathable to water vapour. High mechanical resistance.

## TECHNICAL CHARACTERISTICS

Product based on NHL 5 lime, pozzolana, selected aggregates and other additives.

## ADVANTAGES AND USES

- Interior and exterior permeable coating on new or old walls.
- Realization of reinforced coatings for the reconstruction and filling in rehabilitation of masonry or brick factories.
- Suitable for use in rehabilitation due to its high compatibility with traditional systems.
- High deferred and scaled mechanical resistance.
- Fiber reinforced.
- Indoor and outdoor application in new construction where you want to improve the living conditions compared to cement-based mortars.
- Permeable to water vapour, allowing the support to breathe.
- Does not contain cement.
- Manual and application application.

## SUITABLE SUBSTRATES

- Conventional foundations based on hydraulic binders, brick or stone.
- The foundations must be resistant, stable, healthy and clean, free of dust, remains of release agents, organic products, etc.
- Sanitize the support of possible areas lacking cohesion or little resistance. Eliminate loose parts of the masonry and rebuild with the same mortar. To increase the adhesion of the plaster, the joints between pieces of masonry must be recessed. Avoid the use of mortars with cement to avoid the appearance of salts or their contributions to the masonry.
- In the case of foundations with soluble salts or efflorescence on the surfaces, wash them with low pressure water to eliminate them. Repeat the procedure if necessary and assess the treatment with a suitable primer.
- On porous foundations, it is necessary to moisten the support abundantly and wait for the disappearance of the film of water before applying.
- On slightly porous supports, apply a primer (IMPLAFIX) or improve the roughness by mechanical means.
- On weak supports, evaluate the application of primer (FIJAMOR) to consolidate them superficially and avoid the generation of dust.
- Do not apply on plaster or paint.

# LIME LINE

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### APPLICATION PROCEDURE

- Moisten the foundation and wait for the surface shine to disappear before starting the application.
- On very irregular foundations or with different degrees of absorption, it is recommended to apply a splatter of prior grip approximately 5 mm thick with the same product.
- For large surfaces, the use of mortar projection machines is recommended. Start the application from the base of the wall.
- In the case of cladding or reinforced construction, drill holes for placing the anchors for the reinforcing mesh. These should be done on the wall in structurally stable areas. Arrange the mesh overlapping at least 15 cm. between cloths. The mesh must be separated from the support and embedded in the mortar.
- Start mixing the product with a water ratio of 3.75-4.0 liters of water for each 25 kg bag. Continue kneading until a homogeneous, consistent and workable dough is obtained. Avoid excess water in the mix, do not exceed 4.25 liters of water per 25 kg bag of mortar. Mechanical kneading is recommended.
- Apply a first coat of product between 10 and 20 mm. where the mesh should be embedded. Wait for the first coat to dry before proceeding with the application of subsequent layers with a thickness between 10 and 20 mm.
- For the application between layers, a rough surface must be left to improve adhesion between them.
- Wait for the last layer to harden partially before proceeding with the trowel finish. In periods with adverse weather, high temperatures or very porous foundations, it is convenient to protect with a geotextile or wet burlap to reduce the rate of evaporation of the water from the mixture. It is also suitable to cure the material by spraying water within 24 hours of application.
- To proceed with the finishing with MORCEM®CAL coatings, it is necessary to wait between 24-48 hours per centimeter of application. It is always necessary to moisten the walls and mortars executed for multilayer applications when the lower layers are hardened.

### RECOMMENDATIONS

- Do not apply below 5°C nor above 30°C.
- Do not apply where there is a risk of freezing, rain, strong winds or direct sun.
- It is recommended to gently sprinkle the product the day after its application.
- Sanitize the wall of dust, dirt or efflorescence.
- Moisten the support abundantly.
- The overlapping of layers on the wet mortar ensures good adherence and facilitates carbonation.
- Adjust the mixing water, avoiding excesses, waiting for it to reach consistency through kneading (3-5 min). Do not add water to the already mixed mortar to recover it.
- Substrates with moisture must be previously treated. Take the necessary precautions to prevent capillary rise in the facing and the applied mortar.
- In the case of foundations with little consistency, assess the placement of anchors to hold the mesh.

### PACKAGING AND STORAGE

25 Kg bags of plasticised paper.  
Up to 2 years storage in its original sealed packed, away from bad weather conditions and humidity.

### TECHNICAL DATA

(Statistical results obtained under standard conditions)

| Aspect                                                         | Beige powder                                 |
|----------------------------------------------------------------|----------------------------------------------|
| Kneaded product density                                        | 2,10 ± 0,2 g/cm <sup>3</sup>                 |
| Water vapor permeability                                       | μ ≤ 15                                       |
| Classification according to UNE EN 998-1                       | GP CSIV W2                                   |
| Classification according to UNE EN 998-2                       | G                                            |
| Compressive strength 28 days                                   | ≥ 7,5 N/mm <sup>2</sup>                      |
| Compressive strength 56 days                                   | ≥ 10,0 N/mm <sup>2</sup>                     |
| Compressive strength 90 days                                   | ≥ 12,0 N/mm <sup>2</sup>                     |
| Adherence                                                      | ≥ 0,3 N/mm <sup>2</sup>                      |
| Sulfate resistance (90 d. solution 50 gr/l SO <sub>3</sub> Mg) | No loss                                      |
| Capillarity                                                    | ≤ 0,2 kg/cm <sup>2</sup> •min <sup>0.5</sup> |
| Approximate Yield                                              | 17-19 kg/m <sup>2</sup> per cm of thickness  |

### LEGAL DISCLAIMER

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