



**FINOMIX**<sup>®</sup>  
DRY MORTARS

Technical Data Sheet

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# hydroseal HS 5000

## brushable cementitious sealing slurry

- Waterproofing against positive and negative pressure
- Protects concrete structures against carbonation
- Strong bonding with the substrate
- Excellent workability



# HYDROSEAL HS 5000

## brushable cementitious sealing slurry

### DESCRIPTION

Cement-based, one-component mortar, modified with polymer resins and silica fume, for the protection and waterproofing of concrete structures and masonry against moisture, water ingress and carbonation. It exhibits high adhesion on substrate and excellent waterproofing properties against positive and light negative (up to 1 atm) hydrostatic pressures.

It is classified as cement-based mortar (type C: coating) for the protection of concrete structures according to European standard EN 1504-2.

### APPLICATIONS

HYDROSEAL HS 5000 is applied for the waterproofing and protection in the following cases:

- Basements.
- Water tanks.
- Foundations.
- Lift rooms.
- On surfaces like concrete elements and masonry in old and new structures.

### PROPERTIES / ADVANTAGES

- Excellent waterproofing performance.
- Suitable for waterproofing against positive and negative pressure.
- Protects concrete structures from carbonation due to CO<sub>2</sub> ingress.
- Adheres strongly on mineral substrates like concrete, render, masonry, etc.
- It doesn't corrode the steel-reinforcing elements of concrete.
- Excellent workability.

### HARMONIZED STANDARDS / REGULATIONS

- EN 1504-2:2004: Cement-based product for the protection of concrete surfaces - Coating (C). Meets the requirements of the standard.
- EN 1504-9:2008: Products and systems for the protection and repair of concrete structures - General principles for the use of products and systems. Meets the requirements of the standard according to Principle

2 (MC - Moisture Control) and 8 (IR - Increasing Resistivity).

- **Regulation (EC) No. 305/2011:** CE marked product with Declaration of Performance (DoP): HS5000G/CPR-7-13/046/10-2013 and HS5000W/CPR-7-13/047/10-2013, for grey and white product respectively.

### APPLICATION INSTRUCTIONS

- Surfaces must be clean, free from dust, oil and loose material.
- Decomposed parts of concrete or render must be properly removed (manually, mechanically, by sandblasting or waterblasting, etc.) until the surface remains stable and clean. Restoration must be done using the proper **FINOMIX** repairing products.
- Leaks must first be repaired using the ultra-fast setting mortar **WATER•PLUG**.
- Steel elements protruding from concrete should be cut to a depth of 2-3cm and the holes should be repaired with the appropriate repair mortar (**RP 4000** or **RP 4100**) or using the polyurethane sealing mastic **PU•FIX**.
- Render surfaces must be dry and adhere strongly to the substrate.
- Surfaces must be soaked with water before application. Allow the excess water to evaporate or remove it using compressed air.
- Add the bag content into the necessary clean water under continuous stirring until a homogenous mixture without lumps is formed. A low-speed electric mixer (300 r.p.m.) should be used for mixing. Let the mixture to settle for 5 minutes and then stir again slightly.
- Apply the mixture with a brush or a spatula in 2-3 layers with a maximum thickness depending on the demands for waterproofing. Each layer is applied cross-wise to the previous one as soon as it is sufficiently dry (about 2-3 hours). If it is necessary, moisten the previous layer before applying the next one.
- To achieve proper application, special care should be taken to cover corners and coves.
- Fresh surfaces must be protected from extreme weather and rainfall for at least 24 hours.
- The finished surface of **HYDROSEAL HS 5000** must be left to cure for 2 days before water immersion and 5-7 days before covering.

## ELASTIFICATION

Replace 3-6kg of the mixing water used for HYDROSEAL HS 5000 with the elastifying admixture FINOFLEX in order to improve the overall performance of the final product. FINOFLEX enhances elasticity, mechanical strength and water tightness.

## CLEANING OF EQUIPMENT

Clean all tools and application equipment with water immediately after use. Hardened material can only be mechanically removed.

## RECOMMENDATIONS

- Temperature during application should be between +5°C and +35°C.
- Do not mix HYDROSEAL HS 5000 with dirty or salty water.
- Do not add cement or aggregates in HYDROSEAL HS 5000.
- Postpone the application if high temperatures or frost are expected for the following 24 hours after application.
- During the curing period protect the fresh surface from dehydration.
- Fresh surface must be protected from rainfall and frost for the first 24-48 hours.

## TECHNICAL CHARACTERISTICS

### PRODUCT CHARACTERISTICS

Appearance	cementitious powder
Colour	grey / white
Bulk density	1.30 ±0.05 kg/lit

### APPLICATION CHARACTERISTICS (+23°C / 50% R.H.)

Mixing ratio	25-26% w/w (6.25-6.50 kg water / 25kg bag)
pH	> 11
Density	1.85 ±0.05 kg/lit
Pot life	60 min (22°C)
Application temperature	minimum: +5°C / maximum: +35°C
Time between successive layers	2-3 h
Consumption	approximately 1.2-1.5 kg/m <sup>2</sup> for a 1mm thick layer.

### PERFORMANCE CHARACTERISTICS

Adhesion to concrete (EN 1542, MC 0.40)	≥ 1.5 N/mm <sup>2</sup>
Compressive strength (EN 12190)	≥ 30.0 N/mm <sup>2</sup>
Flexural strength (EN 196-1)	≥ 6.5 N/mm <sup>2</sup>
Capillary absorption and permeability to water (EN 1062-3)	≤ 0.085 kg·m <sup>-2</sup> ·h <sup>-0.5</sup> (Requirement: w < 0.1 kg·m <sup>-2</sup> ·h <sup>-0.5</sup> )
Permeability to water vapour (EN ISO 7783)	S <sub>D</sub> < 1m (Class I: S <sub>D</sub> < 5m)
Permeability to CO <sub>2</sub> (EN 1062-6)	CO <sub>2</sub> S <sub>D</sub> > 50m

**Note:** Measures were carried out in laboratory environment conditions. The different conditions on site (temperature, humidity, wind, substrate absorption) may affect the properties of the material.

## SAFETY PRECAUTIONS

- The product contains cement which has an alkaline reaction with water and is classified as irritant.
- Always wear appropriate personal protective equipment for eyes and skin (protective clothing, gloves and goggles).
- If skin contact occurs, rinse well with plenty of clean water.
- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Consult product's Safety Data Sheet for further instructions on safety handling.
- **PRODUCT FOR PROFESSIONAL USE.**

## PACKAGING - STORAGE

Available in:

- 5kg plastic bags
- 25kg paper bags.

**Storage:** 12 months from production date in original, sealed packaging, protected from direct sunlight and moisture.

## LEGAL NOTICE

The technical characteristics and recommendations for the use and application of the **FINOMIX** range of products are based on the knowledge and experience of the company. The above information shall be considered merely indicative and subject to confirmation after long-term practical application. For this reason, anyone who intends to use the product must

ensure that it is suitable for the envisaged application. Since the specific site conditions during the applications are beyond the control of our company, the user alone is fully responsible for any consequences deriving from the use of the product. **FINOBETON S.A. (FINOMIX)** has the right to modify the properties of its products without prior notice. This release voids any previous publications issued for this technical specifications sheet.

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