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® IDROSILEX

**POWDERED OR LIQUID WATERPROOFER
FOR CEMENTITIOUS MORTARS**



When mixed with cement, sand, and water, IDROSILEX produces an extremely compact mortar that is easy to apply with a trowel or rendering machine even on vertical walls.

Mortar prepared with IDROSILEX has less capillary porosity than conventional cement mortars or lime and cement mortars. The combination of the product's waterproofing properties with an effective rendering system applied in several layers prevents continuity between pores and ensures thorough waterproofing even in the presence of counter-pressure.

RECOMMENDATIONS

Mortar prepared with IDROSILEX forms a rigid waterproofing system and is therefore not recommended for:

- replacing flexible waterproof membranes;
- waterproofing structures subject to severe deformation under stress that may cause cracks to form;
- waterproofing fresh concrete, or concrete still subject to plastic shrinkage.

WHERE TO USE

- Waterproofing concrete basements, cisterns, and canals, as well as concrete, brick, or stone walls exposed to atmospheric agents.

Typical applications

- Waterproof screeds and renders in basements, garages and underground areas in general;
- Waterproof rendering for canals, swimming pools, etc;

- Waterproof rendering on building façades;
- Waterproofing of lift wells and underpasses.

TECHNICAL CHARACTERISTICS

IDROSILEX is an admixture with a base of special waterproofing agents manufactured from a formula developed in the Mapei research laboratories.

IDROSILEX is available in both powder and liquid form.



Preparing waterproof mortar admixed with IDROSILEX POWDER

APPLICATION PROCEDURE

Preparing the substrate

The substrate should be prepared carefully to ensure thorough bonding of the IDROSILEX to the rendering or screed. The surface must be thoroughly clean and solid. Remove old plaster, degraded or loose material, encrusted salts, organic residues, oils and grease.

Roughen concrete surfaces with a bush hammer.

Wet the substrate thoroughly, then remove excess water with compressed air or a cloth so that the substrate is saturated but the surface is dry.

Preparing mortar for renders SCRATCH COAT (first and third coat)

Blend the mix as follows:

- 45 litres of sand, screened and washed, graded from 0 to 2 mm (4 or 5 bricklayer's pails);
- 1 bag of CEM II/A-L 32.5 Portland cement (formerly 325 Portland cement)
- IDROSILEX POWDER: from 1 to 2 kg, the equivalent of a dosage of 2 to 4% by weight of cement. Coverage: approx. 16 m² in thicknesses of 4 to 5 mm.

IDROSILEX POWDER should preferably be dry-blended with the cement and sand to facilitate its dispersion. However, to simplify preparation of the mortar, the powder can be poured into the mixer together with the other ingredients (cement, sand and water). When using sand containing a large percentage of fine-graded aggregate, the IDROSILEX POWDER should be admixed at a ratio of 4%. For sand with less fine-graded aggregate, the ratio can be reduced to 2%.

OR

- IDROSILEX LIQUID: from 1.5 to 2.5 kg (1.2 to 2 litres), the equivalent of a dosage of 3 to 5% by weight of cement. Coverage: approx. 16 m² in thicknesses of 4 to 5 mm.

Pour the IDROSILEX LIQUID into the mixer together with the other ingredients (cement, sand and water). When using sand containing a large percentage of fine-graded aggregate, the IDROSILEX LIQUID should be admixed in a dosage of 5%. For sand with less fine-graded aggregate, the ratio can be reduced to 3%.

Mix the mortar for at least 5 minutes to obtain the best results. The mortar should have a fluid consistency so it can be applied in thin layers with a trowel or with a rendering machine.

TECHNICAL DATA

PRODUCT IDENTIFICATION

Consistency:	powder	liquid
Colour:	white	clear
Density:	0.50 kg/l	1.20 ± 0.02 kg/l at +20°C
Dry solids content:	100%	25%
Storage:	12 months in original sealed packaging	12 months in original sealed packaging. Protect from frost and sunlight
Inflammability:	no	no
Health hazard EC 88/379:	yes, eye irritant	yes, eye irritant
Customs class:	3824 40 00	3824 40 00

APPLICATION DATA

Mix for Renders

Scratch coat:	45 litres of sand, screened and washed, graded from 0 to 2 mm (4.5 bricklayer's pails) 50 kg of cement 1 to 2 kg IDROSILEX POWDER	45 litres of sand, 0 to 2 mm (4.5 bricklayer's pails); 50 kg of cement 1.5 to 2.5 kg of IDROSILEX LIQUID
Consistency:	fluid	fluid

Brown coat:	150 litres of sand, 0 to 5 mm (15 bricklayer's pails) 50 kg of cement 1 to 2 kg of IDROSILEX POWDER	150 litres of sand, 0 to 5 mm (15 bricklayer's pails) 1.5 to 2.5 kg of IDROSILEX LIQUID
Consistency:	plastic	plastic

Mix for screeds

First coat:	45 litres of sand, 0 to 2 mm (4.5 bricklayer's pails) 50 kg of cement 1 to 2 kg IDROSILEX POWDER	45 litres of sand, 0 to 2 mm (4.5 bricklayer's pails) 50 kg of cement 1.5 to 2.5 kg of IDROSILEX LIQUID
Consistency:	fluid	fluid

Second coat:	45 litres of sand, 0 to 2 mm (4.5 bricklayer's pails) 50 kg of cement 1 to 2 kg IDROSILEX POWDER	45 litres of sand, 0 to 2 mm (4.5 bricklayer's pails) 50 kg of cement 1.5 to 2.5 kg of IDROSILEX LIQUID
Consistency:	plastic	plastic

Third coat:	150 litres of sand, 0 to 2 mm (15 bricklayer's pails) 50 kg of cement 1 to 2 kg IDROSILEX POWDER	150 litres of sand, 0 to 2 mm (15 bricklayer's pails) 50 kg of cement 1.5 to 2.5 kg of IDROSILEX LIQUID
Consistency:	damp earth	damp earth

Application temperature range:	from +5°C to +35°C	from +5°C to +35°C
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Density of the mixes:	2.2 + 0.02 kg/l	2.2 ± 0.02 kg/l
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Workability of the mixes:	not more than one hour at +23°C	not more than one hour at +23°C
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Brown coat (second and fourth coat)

Prepare the mix as follows:

- 150 litres of sand, screened and washed, graded from 0 to 5 mm (the equivalent of 15 bricklayer's pails);
- 1 50-kg bag of CEM II/A-L 32.5 Portland cement (formerly 325 Portland cement);
- IDROSILEX POWDER: from 1 to 2 kg, the equivalent of a dosage of 2 to 4% by weight of cement. Coverage: approx. 18 m² in thicknesses of 7 to 8 mm.

OR

- IDROSILEX LIQUID: from 1.5 to 2.5 kg (1.2 to 2 litres), the equivalent of a dosage of 3 to 5% by weight of cement. Coverage: approx. 18 m² for thicknesses of 7 to 8 mm.

The dosage depends on the grading of the sand, as indicated in the instructions for the scratch coat. Mix the mortar in the mixer for at least 5 minutes to obtain the best results. The mortar should have a plastic consistency so it can be applied vertically in thicknesses of 7 to 8 mm.

Preparing mortar for screeds First coat (primer)

Prepare the mix as follows:

- 45 litres of sand, screened and washed, graded from 0 to 2 mm (the equivalent of 4.5 bricklayer's pails);
- 1 50-kg bag of CEM II/A-L 32.5 Portland cement (formerly 325 Portland cement);
- IDROSILEX POWDER: from 1 to 2 kg, the equivalent of a dosage of 2 to 4% by weight of cement. Coverage: approx. 25 m² in thicknesses of 2 to 3 mm.

OR

- IDROSILEX LIQUID: from 1.5 to 2.5 kg (1.2 to 2 litres), the equivalent of a dosage of 3 to 5% by weight of cement. Coverage: approx. 25 m² in thicknesses of 2 to 3 mm.

Mix the mortar in a mixer for at least 5 minutes. The mortar should have a fluid consistency so it can be brushed on in thicknesses of 2 to 3 mm.

Second coat

Prepare the mix as follows:

- 45 litres of sand, screened and washed, graded from 0 to 2 mm (the equivalent of 4.5 bricklayer's pails);



Spraying on the first coat of mortar admixed with IDROSILEX LIQUID



Screeding with mortar admixed with IDROSILEX LIQUID



Applying mortar admixed with IDROSILEX over concrete roughened with a bush hammer

- 1 50-kg bag of portland cement CEM II/A-L 32.5 (formerly 325 Portland cement);
- IDROSILEX POWDER: from 1 to 2 kg, the equivalent of a dosage of 2 to 4% by weight of cement. Coverage: approx. 10 m² for thicknesses of 7 to 8 mm.

OR

- IDROSILEX LIQUID: from 1.5 to 2.5 kg (1.2 to 2 litres), the equivalent of a dosage of 3 to 5% by weight of cement.

Coverage: approx. 10 m² in thicknesses of 7 to 8 mm.

Mix the mortar in a mixer for at least 5 minutes. The mortar should have a plastic consistency.

Third coat

Prepare the mix as follows:

- 150 litres of sand, screened and washed, graded from 0 to 5 mm (the equivalent of 15 bricklayer's pails);
- 1 50-kg bag of Portland cement CEM II/A-L 32.5 (formerly 325 Portland cement);
- IDROSILEX POWDER: from 1 to 2 kg, the equivalent of a dosage of 2 to 4% by weight of cement. Coverage: approx. 5 m² in thicknesses of 30 mm.

OR

- IDROSILEX LIQUID: from 1.5 to 2.5 kg (1.2 to 2 litres), the equivalent of a dosage of 3 to 5% by weight of cement. Coverage: approx. 5 m² in thicknesses of 30 mm.

Mix the mortar in a mixer for 6 to 7 minutes, adding only enough water to obtain mortar with a damp earth consistency.

APPLYING THE MORTAR

Renderers

Using a trowel or rendering machine, apply the mortar in layers as follows:

- 1) scratch coat, approx. 4 to 5 mm thick
 - 2) brown coat, approx. 7 to 8 mm thick
 - 3) scratch coat, approx. 4 to 5 mm thick
 - 4) brown coat, approx. 7 to 8 mm thick
- Total thickness: approx. 25 mm.

Each coat should be applied before the preceding one has finished setting. When there are prolonged interruptions between coats, freshen the surface by applying fresh mortar over the joint for 10 to 15 cm. To waterproof a room thoroughly, before applying the rendering, reinforce the joint between the wall and the floor (the weakest point in the structure) with a mortar composed of 1 part by volume of sand graded from 0 to 2 mm mixed with a solution of 1 part PLANICRETE and 1 part water. The mortar must have a plastic consistency.

Screeds

Trowel on the first coat of mortar with a fluid consistency in a thickness of 2 to 3 mm, then immediately apply the second coat of mortar with a plastic consistency in a thickness of 7 to 8 mm, giving it a rough float finish.



Column waterproofed with IDROSILEX

Within approx. two hours, before the preceding coat has finished setting, apply the third (and final) coat of mortar with a damp earth consistency approx. 30 cm thick. Tamp the fresh mortar vigorously until bleeding occurs and finish with a float. In case of prolonged interruptions,



Screed admixed with IDROSILEX

start up again by overlapping one coat over the other for 10 to 15 cm.

Total screed thickness: approx. 40 mm.

Cleaning

Fresh mortar admixed with IDROSILEX can be cleaned from tools with water. After setting, cleaning can only be done mechanically.

COVERAGE

Renders 25 mm thick

Dosage 2%: 250 g/m²

Dosage 3%: 350 g/m²

Dosage 4%: 500 g/m²

Dosage 5%: 600 g/m²

Screeds 40 mm thick

Dosage 2%: 400 g/m²

Dosage 3%: 500 g/m²

Dosage 4%: 700 g/m²

Dosage 5%: 850 g/m²

PACKAGING

IDROSILEX POWDER

25 x 1-kg boxes

IDROSILEX LIQUID

6-kg and 25-kg drums.

STORAGE

Store in closed containers. Protect from frost and sunlight.

WARNING

N.B. Although the technical details and recommendations contained in this

report correspond to the best of our knowledge and experience, all the above information must, in every case be taken as merely indicative and



subject to confirmation after long-term practical applications; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

N.B. FOR PROFESSIONAL USE ONLY

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