



RENOVEX[®] H

LIQUID ADDITIVE FOR APPLYING HYDROPHOBIC, AIR ENTRAINED REPAIR PLASTERING

**IT SPEEDS UP THE DRYING OF THE WET, SALT
CONTAMINATED WALLS
EXCELLENT TO CONSERVE THE CONDITION OF BUILDINGS**

**THE AIR ENTRAINED PLASTERING CONTAINING
RENOVEX H ADDITIVE meets the requirements
of WTA MERKBLATT 2-2-91**



T e c h n i c a l e x p e r t i s e - p l a n n i n g - c o n s t r u c t i o n - s a l e s

DESCRIPTION OF THE PRODUCT

RENOVEX H IS A LIGHT YELLOW COLOUR, LOW VISCOSITY LIQUID WITH WHITE COLOUR EMULSION LAYER ON THE TOP, THE LATTER CAN BE HOMOGENISED BY STIRRING. IT CAN BE MIXED WITH WATER AT ANY RATE, AND HAS LIGHT ACIDIC REACTION. IT IS FULLY CHLORIDE FREE, AND DOES NOT CONTAIN ORGANIC SOLVENT AGENTS.

IT CONTAINS SURFACE-ACTIVE- AND HYDROPHOBIC ACTIVE INGREDIENTS.

SPECIAL EFFECTS

Due to the RENOVEX H additive the mortar will foam up, and a uniform spread open porosity system will form, which - having hardened - remains intact in the plastering as well.

This porosity system is suitable for vapour out the wet walls, speed up the drying process and incorporate the crystallising salt.

Its hydrophobic active ingredient increases the resistance of the plastering against the capillary water absorption and the splashing rainwater (it has a water repellent property), that is reduces the water absorption of the plastering, and increases the frost resistance.

RENOVEX H makes the mortar thixotrope, thereby makes easy the application.

Plastering containing RENOVEX H has active ventilation, dries fast and can be painted by vapour permeable type paint having 21-28 days elapsed.

FIELDS OF APPLICATION

At old, wet walls:

- Plastering containing RENOVEX H can be applied on brick-, clay brick-, natural stone-, concrete and amalgamated material walls, indoor and outdoor alike, e.g. permanent surface finishing of basements, basement premises, warehouses, dwelling rooms, bathrooms, etc.
- Its water repelling property – in addition to the porosity – and consequently the better frost resistance property than of the traditional mortar makes it suitable for renovating facades, footings and fencing, as well as forming "broad stones"- and string cornices.
- Plastering containing RENOVEX H assures by itself the dry and salt flower free surface in case the mortar contains max 50% relative wetness, and max. 0.5 volume % salt that could be dissolved in water.
- It could effectively be used at subsequent horizontal wall waterproofing jobs against soil moisture suction (e.g. wall through-cut, sheet punching, injecting, electro-osmotic wall drying) to increase the effectiveness of the



T e c h n i c a l e x p e r t i s e - p l a n n i n g - c o n s t r u c t i o n - s a l e s

method of interference, with ventilating out faster the wetness remained in the wall above the waterproofing strip.

At new constructions:

- It assures the effective drying of the artificial or natural wetness of the newly constructed walls.
- It reduces the effects of the damages caused by ageing waterproofing, elongates the life span of the wall.
- In general term, it improves the quality of the plastering.

USERS MANUAL

PREPARATION OF THE BASIC SURFACE

The old plastering should be removed to about 0.5 m higher than wet spots could be seen on the wall. At walls thicker than 0.5 m the old plastering has entirely to be removed to an elevation 1.5 times more than the thickness of the wall.

Joints are to be cleared to about 2 cm depth, damaged bricks are to be replaced, loose, frost- or salt damaged parts of the wall are to be demolished.

The dedusted surface is to be made wet in accordance with the adsorbing capability of the walling material (stone-, brick wall, in wet or dry condition, etc.).

In case of wall with salt content exceeding 0.5 volume %, the structure of the surface should thoroughly be cleaned off in order to assure homogenous adhesion for the salt neutralising and watertight layers (salt fixing prime coat, "fluating") in the entire surface.



MIXING OF THE MORTAR

Volume rate for mixing:

RENOVEX H : water : cement : sand = 0.1 : 10 : 10 : 40

Type of cement could be used: CEMII/B-S 32 N EM 197-1

Type of sand could be used: 2nd class, with 0-5 mm grain size, clean, with maximum 3 volume % clay-silt content

Mixing order and material quantities: (e.g. for 100 l capacity falling-dram or forced drive type mixer)

- 0.1 litre RENOVEX H with 8-10 litres water (depending on the wetness content of sand) premixed for 3-4 minutes
- 10 litres sand to add and premix
- 10 litres cement to add and premix
- adding an additional 30 litres sand with continuous charging and complete the mixing of the mortar

The appropriate consistency could be assured with adding sand and subsequent mixing.

ATTENTION: RENOVEX H additive should be stirred prior to each charge!

Mixing time: minimum 10-15 minutes, but the mixing should be continued until the mortar applied.

Method of transport: the mortar containing RENOVEX H additive should be transported by a vibration- and shaking free manner to avoid segregation.

Applying time: the mortar containing RENOVEX H additive should be applied on the wall within cca. 1 hour (depending on the air temperature).

If water appears on the surface of the mortar, re-mixing is needed to re-establish the required air entraining property.

Checking the thixotrope effect: a practical check-up procedure prior to applying the prime coat is to check whether the 3-4 cm thick sample taken from the ready-made mortar would adhere to (remain on) the trowel or not if turned downward.

CONSTRUCTION OF PLASTERING

Pre-wetting

The prepared surface to be plastered should be made wet – in accordance with the material (brick, concrete, stone, etc.) and wetness of the wall – if needed.

Priming ("gúzolás")

Minimum 75% of the surface to be plastered should be coated by material made from the ready-made mortar diluted with 20% water.

In case of wall with salt content exceeding 0.5 volume % either a special surface treatment is to be executed (e.g. with salt fixer, salt neutraliser, "fluatising") or salt fixing priming should be applied.



Technical expertise - planning - construction - sales

Plastering

With about 2 m frequency vertical guiding strips are to be formed by the plastering with the required thickness. At longer wall sections the plane of the wall surface should be formed by using a control string.

Plastering between the guiding strips could be made with bricklayer's broom or with trowel.

Forming, levelling to plane and cleaning of the surface is made without compaction; the surplus mortar should be removed with a walling lathe used between the two guiding strips.

Minimum plastering thickness: 2.5 cm (meaning enough storing capacity to incorporate mineral salts)

Maximum plastering thickness: 5 cm (applied in 1-2 cm thick layers)

Smoothing

Prior to hardening the mortar containing RENOVEX H additive could immediately be smoothed by its own material (with dilution and filtering through 2 mm size sieve if necessary).

Prime coat plastering, having hardened, should be soaked 1-2 hours prior to the smoothing, in order to assure proper adhesion despite of the hydrophobic effect. A 5-10 mm thick smoothing layer is to be applied onto the pre-moisturised prime coat mortar, to avoid scratches caused by the greater sand grains at the easy smoothing movements. To form a mere 1-2 mm thick scratch-free layer special sacked smoothing mortar could be used, containing in mixed form quartz sand with less than 1 mm grain size and the mortar material generally used at "repair plastering" technology.

Smoothing: by polystyrene or elder wood smoothing tool.

CURING

The ready-made plastering should be kept wet for a 3-4 days period – depending on the air temperature (e.g. by water spaying, or foil cover).

SUFACE FORMING - FINISHING

Finishing of plastering containing RENOVEX H additive could only be made with vapour permeable paint materials and putties (with lime-, silica- or silicon bonding). Gypsum or putties with CMC bonding agent, as well as materials with film-like surfaces, porosity sealing or vapour blocking paints, and wall finishes must not be applied.



TECHNICAL PARAMETERS

PARAMETERS OF THE PRODUCT

Appearance:	light yellow colour aqueous solution, with white emulsion
Reaction:	pH 6.0 ± 1
Density:	$1.0 + 0.01 \text{ g/cm}^3$
Dry material content:	$19.0 \pm 2 \text{ volume } \%$

SOLUTION AGENT: WATER

Danger classification: not hazardous product, S26, S28

Fire protection ranking: Class E, not incendiary

Waste handling: No waste is produced during the use the additive. In case of accidental pouring out the liquid it should be impregnated by cement-sand mix, wait until hardening and handle as construction rubble

PARAMETERS OF THE PLASTERING

Body density:	$1335\text{-}1549 \text{ kg/m}^3\text{mm}^2$
Porosity content:	$39.0 - 47.5 \text{ volume } \%$
Bending/tensile strength in 28 days age:	1.26 N/mm^2
Compression strength in 28 days age:	2.28 N/mm^2
Tensile-adhesion strength (on brick surface):	0.28 N/mm^2
Capillary water absorption:	5-15 mm

BASIS OF THE APPLICATION PERMIT (Appropriateness Certificate)

Building Industry Technical Permit No 206/1999 of ÉMI Rt.

PACKING: in white colour, light protecting, sieve textured plastic bottles containing 1 kg quantity. The crate includes 10 No bottles.

STORING: in the original, closed packing, on locations protected from freezing and strong warming up where it could be stored for 2 years.