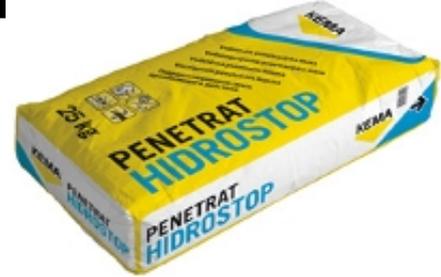


TECHNICAL DATA SHEET

HIDROSTOP PENETRAT

Waterproof penetrant



PRODUCT DESCRIPTION

Cement-based composition, with predefined quartz sand grain sizes and special penetrating and crystallization accelerating additives.

HIDROSTOP PENETRAT has two functions:

Capillary - active chemical admixtures penetrate deep into the pores of the construction material, form insoluble crystals, thus sealing the pores and protecting the material from penetration of water and other liquids.

Barrier function - formation of a solid and waterproof insulation layer on the construction material surface.

Waterproof penetrant HIDROSTOP PENETRAT assures the most effective permanent sealing of concrete surfaces, thus preventing water penetration. It features the following advantages: in-depth action, ensured waterproofing despite surface damage, crystallization products seal the pores and capillaries in the concrete, 100 % water tightness, resistance to positive and negative water pressures, water vapour-permeability, application onto moist mineral substrate, simple use, frost-resistance.

Field of use

Permanent and effective waterproofing protection of concrete surfaces. Is resistant to ammonium sulfate, sea water and oil, and thus suitable for protecting surfaces of pools for neutralization of waste water, tanks for process water, sewage, waste water treatment plants, concrete silos for the ensilage of fodder for oil-tight protection of concrete oil catchers. Is resistant to both positive (min. 3 bar) and negative water pressure (min. 2 bar) and provides waterproof protection of buildings against moisture, groundwater and water under pressure.

Product properties

- Capillary and barrier action
- Permanent waterproof sealing of concrete surfaces
- Assured waterproofness also in case of surface damage
- Resistance to ammonium sulphate and transformer oil
- Conditionally suitable for drinking water reservoirs
- Resistance to negative and positive water pressure
- Water-vapour permeable
- 100% waterproof
- Frost-resistant

PRODUCT DATA

Basic information

Appearance	Grey powder
Packing	25 kg in paper bag (plastificated) / 1200 kg (48 x 25 kg) on pallet
Storage and expiration date	12 months from date of production if stored properly in undamaged original sealed packaging in dry and cool conditions. Date of production is printed on packaging.

Technical data

Type of product	Cementitious polymer modified compound
Bulk density of powder	1,26 kg/l
Weight of fresh mortar	1,88 kg/l
Grain size	D _{max} : 1 mm
Layer thickness	2-5 mm
pH	11,5
Bond strength by pull-off test on concrete	1,96 MPa
Liquid-water transmission rate (permeability)	
	-on concrete:0,07 kg/m ² .h0,5

	-on cement based plaster: 0,09 kg/m ² .h0,5
Adhesion to concrete after thermal compatibility of 20 cycles	1,75 MPa
Compressive strength after 28 days	>= 35,0 MPa

INSTRUCTIONS FOR USE

Consumption

3-4 kg/m² for two coats (approx. 2 mm thickness)

Base

The substrate must be clean and free of all oil, grease, and wax, latex compounds, curing compounds, dust and all foreign matter. Prior to applying HIDROSTOP PENETRAT coating, the surface has to be moistened with clean water. The coating is applied when the surface is apparently dry or when it is mate. Any standing water on surfaces has to be removed.

The reinforced cement floor base and concrete has to be at least 28 days old.

Base preparation

Suitable method for cleaning of surface is with water under big pressure or sandblasting. If applying on too smooth surfaces, previous roughening by sand-blasting, grinding or brushing with a wire brush is recommended. Cracks, damages, segregation nests, and other irregularities on the surface must be previously repaired with HIDROSTOP KIT quick-setting putty.

Active water intrusions are stopped with the HIDROZAT mortar.

Contacts of vertical and horizontal surfaces are rounded into grooves with HIDROSTOP KIT quick-setting putty.

The waterproof penetrative coating HIDROSTOP PENETRAT can be applied onto the following foundations:

- Concrete with thickened structure, at least MB 12/15, that is solid and without segregation nests, cracks, and bad load capacity layers.
- Brick walls and concrete block walls constructed with cement mortar with at least 10 mm thick cement plaster coating. (In case of sealing clay brick wall below the level of the ground, the waterproof coating always has to be applied on the water flow-in side of the wall).
- Onto at least 10 mm thick cement plaster, applied as smooth or rubbed coating with perfect adherence to the surface.

Mix ratio

5,5-6,5 l of water per 25 kg of dry mixture

Mix time

Clean water is prepared and the dry mixture HIDROSTOP PENETRAT is added and well stirred to achieve a homogenous coating of soft-plastic consistency without clods. Prepare as much coating as you can use in one hour. Such prepared coating has to rest for approximately 5 minutes to mature and then it has to be stirred again. The coating consistency is finally adjusted to the way of applying (brush, finishing trowel) by adding some water. Never exceed the maximum permissible water level. Once the coating is prepared, fresh material or water must not be added in order to make it workable after the time of workability has already expired.

Mix tool

Stir with an electrical drill with suitable accessory for mixing. Number of revolutions has to be set to minimum.

Installation

Apply HIDROSTOP PENETRAT with a brush on a surface in completely covering layer (consumption approx. 1,5 kg/m²).

When the first layer achieves sufficient strength, the second is applied perpendicularly to the previous. (consumption additional 1,5 kg/m²). If smooth surface is required, the third layer should be applied with a brush and levelled with a finishing trowel. If individual layers dry before applying of the next layer, they have to be previously moistened.

While applying the coating, be careful to achieve complete covering, especially in corners, semicircular contacts and edges.

When HIDROSTOP PENETRAT coating is applied on horizontal walking surfaces, they have to be additionally mechanically protected (concrete layer, ceramics, various tiling).

The final coatings, tiles and similar can be built in after sufficient strength of the waterproof coating is achieved or not before three days have passed.

Tool

Brush and trowel.

Cleaning of tool

Clean tools immediately after the use before mortar hardens. Hardened material on tools can only be removed mechanically.

Usage time

approx. 1 hour

LIMITATIONS

Base temperature

+5°C min./ +30°C max.

Air temperature

+5°C min./ +30°C max.

Material temperature

+5°C min./ +30°C max.

Warnings

- Ideal temperature for applying of the coating HIDROSTOP PENETRAT is between + 15°C and +20°C.
- In case of high air and surface temperature, the surface has to be substantially moistened. If the coating layer is drying too quickly, it has to be additionally moistened.
- If rain is expected in 4-6 hours after applying the coating, it must not be applied. As well it must not be applied if a drop of temperature below +5°C is expected in 2 hours after applying.
- The coating has to be protected from too quick drying at least for 24 hours after it has been applied. In extremely unfavourable weather conditions (strong sunshine, wind) the adequate curing is recommended (sprinkling with water, covering etc.).
- Times specified in the technical sheet were measured at the temperature of +23°C and relative air humidity of 50 %. Higher temperatures reduce, while lower temperatures prolong those times.
- Protect freshly installed material from freezing, rain and other weather conditions. The material should not be used at (surface, air, material) temperatures lower than +5°C.

Recommendation: Remains of unhardened/unset material had to be removed in accordance with the legislation.

Data source: All technical data in this technical sheet was obtained by laboratory research. Actual data may differ due to different working conditions.

Local restrictions: Due to specific local regulations the installed product can differ from country to country. For exact instructions for use a country specific technical sheet should be obtained.

PROOFS

Norms/Standards

In accordance with European standards EN 1504-2:2004

SAFETY DATA

Irritating. Contains cement. Irritating to eyes, skin and respiratory tract. In case of eye contact wash thoroughly with water at once and consult a doctor. In case of skin contact flood with a lot of water. Keep away from the reach of children. More data on storage, handling and use of mixture can be found in the safety sheet which contains safety, toxicological and ecological data. Warnings on the original packaging should also be considered.

LEGAL BASE

Information and recommendations related to use of KEMA products are presented in good faith and believed to be correct. The later is based on our knowledge and experience with the products. Information is supplied upon the condition that products are stored and used according to the recommendations and the persons receiving the same will make their own determination as to its suitability for their purposes prior to use. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to Information or the product to which Information refers. In no event will KEMA be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information or the product to which Information refers. Nothing contained herein is to be construed as a recommendation to the use any product, process, equipment or formulation in conflict with any patent, and KEMA makes no representation or warranty, expressed or implied that the use thereof will not infringe any patent. All orders fall under current sales and supply conditions. The user should always check the latest technical sheet available upon demand.