



HIDROSTOP VARIO

Two-component elastic waterproof coating of a new generation

- ▶ Revolutionary easy to apply manually
- ▶ Crack over-bridging, class A4 (more than 1,25 mm)
- ▶ Long-term UV stability
- ▶ Possible application on moist mineral substrate
- ▶ For outdoor and indoor use
- ▶ Resistance to sodium chloride, sea salt, ammonium sulfate and diesel oil, Frost-resistance
- ▶ Suitable for drinking water reservoirs
- ▶ Excellent adhesion on the substrate > 1 MPa (on concrete 2,7 Mpa)
- ▶ Possible machine application with airless process
- ▶ Flexibility



PRODUCT DESCRIPTION Two-component highly elastic cement-based waterproof coating made of a pre-prepared dry cement composition, fillers and additives (component A) and polymer-water dispersion (liquid component B).

FIELD OF USE The coating is waterproof at positive and negative water pressure, water vapour-permeable and frost-resistant. For sealing of balconies, terraces, bathrooms, pools, water reservoirs etc., directly under the tiles, for indoor and outdoor use. For concrete protection - it complies with EN 1504-2, like surface coating (C), for managing moisture content in concrete (principle MC) with capability to overcome cracks class A4 (1,25 mm)

- PRODUCT PROPERTIES**
- Revolutionary easy to apply manually
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 - Long-term UV stability
 - Possible application on moist mineral substrate
 - For outdoor and indoor use
 - Resistance to sodium chloride, sea salt, ammonium sulfate and diesel oil, Frost-resistance
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 - Flexibility

PRODUCT DATA

BASIC INFORMATION

Appearance Component A - grey powder, Component B-white dispersion

Packing 28 kg complete 20+8 (component A: 20 kg in paper bag (plastificated) and component B: 8 kg in plastic pail)
17,5 kg complete 12,5+5 (component A: 12,5 kg in plastic bag and component B: 5 kg in plastic pail)

Storage and expiration date Dry component A: 12 months, when stored on a dry place and protected from moisture and frost. Liquid component B: 12 months, when stored on a cold place and protected from frost.

TECHNICAL DATA

Type of product Cementitious polymer modified compound

Bulk density of powder 1,0 kg/l SIST EN 1015-6:1999/A1:2007

Weight of fresh mortar 1,51 kg/l SIST EN 1015-6:1999/A1:2007

Grain size D_{max} : 0,40 mm EN 12192-1:2000

Layer thickness at least 2 up to max. 5 mm

pH 11

Reaction on fire class F SIST EN 13501-1

Adhesion strenght 2,8 N/mm² SIST EN 1542:1999

Thermal stability - adhesion strenght after 20 cicles without salts 4,2 N/mm² SIST EN 13687-3:2002

Capillary absorbtion and water permeability $w=0,01 \text{ kg/m}^2\text{h}0,5$ SIST EN 1062-3:2008

Water vapour permeability $SD=1,5 \text{ m}$ SIST EN ISO 7783-2:1999

Crack overbinding Class A4: 1,25 mm SIST EN 1062-7:2004

Release of dangerous substances See safety data sheet

INSTRUCTIONS FOR USE

- Installation with wide brush or roller : 20 kg of component A + 8 kg component B in ratio (A:B = 2,5:1)
- Installation with steel trowel : 20 kg of component A + 6,7 kg component B in ratio (A:B = 3:1)
- Machine application : 20 kg of component A + 6,7 kg component B in ratio (A:B = 3:1). For airless application (PFT) we use 6-7 mm nozzle (e. Inotec).

- CONSUMPTION**
- 1,5 kg/m² for two coats for manual application.
 - Machine application (airless - PFT) : approx. 2 kg/m² for 2 mm layer 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 VARIO 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. Absorptive surfaces has to be impregnated with the polymer dispersion (KEMACRYL, KEMAGRUND S or KEMAGRUND A) diluted with water in the ratio 1:1 to 1:3 (consider direction for use in technical data sheets for primers KEMA). 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.

When HIDROSTOP VARIO coating is applied on balcony, terraces and other surfaces, when higher temperature loads are expected, contain of moisture can be max. 4% (CM value).

The waterproof penetrative coating HIDROSTOP VARIO 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.
- Gasconcrete (Siporex, Ytong)
- Gypsum boards
- 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.
- Existing ceramic tiles with faultless binding on substrate.

MIX RATIO 20 kg A component + 8 kg B component;

MIX TIME Component B is pour into clean container and the dry component HIDROSTOP VARIO 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. 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 HIDROSTOP VARIO is applied in at least two layers. For extra loads three layers are recommended. A common thickness should not exceed 5 mm.

Application with wide brush: Apply HIDROSTOP VARIO 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). A common thickness should not exceed 2 mm. The third coating can also be applied by finishing trowel, if a smooth surface is required. A common thickness should not exceed 5 mm.

Application with trowel and reinforcing with glass mesh: in first layer of HIDROSTOP VARIO the glass mesh is insert and "fresh-to-fresh" apply coat as much as needed for complete covering of mesh. When the first layer achieves sufficient strength (after 3-5 hour), the second is applied and smooth.

Wet machine application: HIDROSTOP VARIO is possible to apply also with machine with wet procedure. Coat is to splash in thickness of app. 2 mm and smooth with trowel. When the first layer achieves sufficient strength (after 3-5 hour), the second is applied and smooth.

For the smoother surface, HIDROSTOP VARIO is with trowel applied. After initial cure of mortar smooth the surface with rubber trowel using the additional wetting until complete smoothing.

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

When HIDROSTOP VARIO 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, trowel or with machine (wet procedure)

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 VARIO 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.).
 - Flexibility and cracks bridging of coat HIDROSTOP VARIO don't sufficient the sealing of construction and moving joints. In these cases we recommended the usage of permanently elastic putties (KEMASIL) or sealing ribbons (KEMABAND).
 - 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** prEN 14891

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.