



HIDROIZOL F2

Two component cementitious coating for waterproofing EN 1504-2: covering/coating

PROPERTIES

HydroBlocker Hidroizol F2 is a two-component coating, based on cement, selected fine-grained sand, special additives and polymer water dispersion.

We recommend **HydroBlocker Hidroizol F2** for sealing:

- water tanks and accumulation pools,
- concrete pipes,
- balconies and terraces,
- bathrooms and shower cabins.

ADVANTAGES OF USE

In a fresh state:

- easy preparation: just mix the already measured components on the place of application: liquid component B and dry component A – error during mixing is not possible;
- suitable for exterior and interior use;
- application on horizontal and vertical surfaces;
- resistant to freezing and deicing salts;
- thanks to good workability, besides application with a trowel, it may also be applied with a brush.

HIDROBLOCKER HIDROIZOL F2 is a watertight, vapor permeable mass resistant to freezing. Strengthening with a fiberglass netting, which is base resistant, also enables the use of the HydroBlocker Hidroizol F2 coating on surfaces subjected to bending.



TECHNICAL PROPERTIES

Property	Testing method	Declared value	
		Component A	Component B
Color and appearance	Visual	Grey powder	White liquid
Density (g/l)	EN ISO 2811-1	-	ca.1
Largest aggregate grain size (mm)	EN 12192-1	0.5	-
Fresh mix			
Mixing ratio	-	Component A : Component B 20 : 5	
Density of fresh mix (kg/m ³)	EN 1015-6	1800 ± 90	
Workability (mm)	EN 1015-3	200 ± 30	
Workability time (min) at T (20°C)	-	ca. 25-30 depending on the temperature	
Recommended temperature during use - mortar, substrate, environment (°C)	-	+5 to +35 Optimal: +15 to +25	

Property	Testing method	Requirements of standard EN 1504-2	Declared
Hardened coating			
Adhesion strength to concrete - 28 days of care at 20°C and 50% R.H. [N/mm ²]	EN 1542	> 0.8	> 0.8
Adhesion strength to concrete - after 7 days at 20°C and 50% R.H. and 21 days in water [N/mm ²]	EN 1542	-	> 0.8
Thermal compatibility, Part 1: Adhesion after freeze-thaw cycling in the presence of salts (MPa)	EN 13687-1	> 0.8	> 0.8
Permeability to water vapor (m)	EN ISO 7783	Class I s _D < 5 m	Class I s _D < 5 m
Capillary absorption and permeability to water (kg/m ² *h ^{0.5})	EN 1062-3	W < 0.1	W < 0.1
Water permeability under pressure (5 bars, 3 days) expressed as the depth of water penetration	EN 12390-8	-	No penetration
Water permeability under pressure (1.5 bars, 7 days) expressed as the depth of water penetration	EN 14891	-	No penetration

INSTRUCTIONS FOR USE

• SUBSTRATE PREPARATION

The surface to be protected must be cleaned from dust, greasy stains, mold and other impurities, as well as loose materials. If the surface is really dirty, very smooth or if cement milk appeared on its surface (film) it is necessary to clean it mechanically: e.g. water blasting, sanding or grinding. Greater damages should be repaired before applying **HydroBlocker Hidroizol F2** with an appropriate repair mortar (**Tekamal MSM or Tekamal Silika MSM or Tekamal Alteks**).

The surface to which **HydroBlocker Hidroizol F2** is applied must be deeply saturated with water, but there must not be any standing water on it, which prevents its adhesion. Concrete tensile strength must not be less than 1.5 N/mm².

• COATING PREPARATION

Pour the prescribed amount of component B (liquid) in a suitable clean container, and then slowly add the component A (powder) during stirring. Mix with a slow speed drill so that the lowest possible amount of air penetrates into the mixture. Mix as much time as it takes to get a homogenous mass. Leave the mixed mass for 5 min, then stir it again and use it within 20 to 30 minutes. Usability time depends on the operating temperature.

Water or any other substance **must not be** added.

• APPLICATION

Apply **HydroBlocker Hidroizol F2** with a brush or a trowel. Make sure that no air bubbles appear between the substrate and the fresh coating. Rub the first layer in the substrate well and apply it with a thickness of ca. 1 mm. Apply the second / third layer in the same manner in mutually perpendicular directions. The time period between applying layers must be 8-24 hours. The recommended application temperature for HydroBlocker Hidroizol F2 is 10–25°C.

The highest thickness of an individual layer must not be more than 2 mm.

For a watertight substrate, the total layer thickness should be at least 3 mm.

If **HydroBlocker Hidroizol F2** is used for terrace or balcony, it is recommended to press the fiberglass netting into the fresh first applied layer. In case of application of the protective coating to rigid surfaces, it can be applied without the netting.

When sealing the connection between the horizontal and vertical surface, it is recommended to use rubber sealing tapes and corners from the **HydroBlocker Tekatrak** family. Sealing tapes (HydroBlocker Tekatrak 120) and corners (HydroBlocker Tekatrak KN and HydroBlocker Tekatrak KZ) are glued to each other with a sealant **Tekaflex MS 15** or the sealing tape HydroBlocker Tekatrak SL 100 is used.

• CURING

It is important to protect the fresh coating from rapid drying – strong sunlight, wind and draft, as well as from precipitation and freezing.

When insulating the water tank, the coating must harden at least 28 days before filling the tank with water.

• EQUIPMENT CLEANING

All tools and accessories must be thoroughly washed with water immediately after completion of work. The hardened material may also be removed mechanically.

ADDITIONAL RECOMMENDATIONS AND WARNINGS

- The coating should not be applied in temperatures lower than +5 °C and higher than +35 °C!
 - Temperature has an impact on time of workability, setting and hardening. For achieving optimal properties, we recommend that the surface temperature before and during application, as well as 48 hours after application is between +15 and +25°C.
 - At low temperatures (lower than +10°C) setting and hardening times are extended, so we recommend to keep the coating in heated rooms and to perform works during the warmest part of the day.
 - At high temperatures (higher than +30°C) setting time is shorter, so we recommend to keep the coating in cooler rooms, and to perform works during the coldest part of the day.
 - Thickness of one layer of HydroBlocker Hidroizol F2 must not exceed 2 mm.
 - **HydroBlocker Hidroizol F2** does not bridge cracks.
 - The freshly installed coating must be protected from precipitation and water penetration for 24 hours.
 - Always use only originally packed, closed, undamaged and properly stored bags and canisters.
 - Never apply the coating to a smooth and unclean surface!
 - Never apply the coating to a dry surface!
 - Never add water or dry mix to the already heavily hardened mixture. Such coating is to be disposed of!
 - The prescribed mixing ration is to be complied with – dry component : liquid component = 20 kg : 5 kg.
 - Walking cannot be done over the **HydroBlocker Hidroizol F2** due to its high polymer content, and therefore it needs to be protected with finishing surfaces (ceramic tiles, stone, etc.) in case of protection or reconstruction of walkable surfaces.
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- It is also necessary to comply with instructions of the standard EN 1504-10: Products and systems for the protection and repair of concrete structures – Part 10: Site application of products and systems, and quality control of the works.
 - Please call our technical service for all additional information and explanations.

CONSUMPTION

- Ca. 2 kg/m²/mm

PACKAGING

- Component A: bags 20 kg
 - Component B: canisters 5 kg
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- Component A: bags 8 kg
 - Component B: canisters 2 kg

STORAGE

- **Component A:** The powder must be stored in a **well-sealed packaging**, in a dry and well ventilated space in order to protect it against damage and moisture.
 - **Component B:** The liquid must be stored in **well-sealed packaging** at temperatures between + 5°C and + 35°C, and protected against damage, freezing and direct sunlight.
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- In a well-sealed and unopened packaging, the shelf life is a minimum of 1 year from the production date.
 - After the expiry date, the product is not necessarily unusable, but it is required to test those properties which are significant for intended use.



HIDROIZOL F2

SAFETY PRECAUTIONS

Due to cement content, the mortar irritates the eyes and the skin. In contact with the skin, it may cause allergic reactions, which is why protection gloves must be worn when working with plaster and eye contact must be prevented (protection goggles). Inhaling the powder must also be avoided. During constant work with the mentioned material, breathing protection should be worn.

See Material Safety Data Sheet.

WARNING

Instructions were given based on our research and experience, so due to specific conditions and manner of work we recommend prior trials to be done for each individual case of application. Since we cannot influence the performance of works, we are not liable for their quality.

HydroBlocker Hidroizol F2 complies with requirements of the standard EN 1504-2: Products and systems for protection and repair of concrete structures – Part 2: Surface protection systems for concrete, coating (for procedures based on principles: 2.2; 8.2).

Safety Data Sheet issue: 06/17