

# HIDROFOB-21

*Admixture for concrete and mortar used for preventing capillary absorption and gaining water-repellent surfaces*

## Field of application:

As concrete admixture, Hidrofob-21 prevents capillary absorption of water through concrete sections, making the concrete water-resistant and the concrete surfaces water-repellent. It increases durability of concrete subjected to permanent contact with water and exposed to chemical aggression. Recommended for objects in contact with sea water, ice, chemical industry and objects exposed to carbonation (e.g. underground structures, harbor facilities, tunnels, reservoirs, bridges, foundations, retaining walls).

For prefabricated pavement elements, in addition to water-resistance, Hidrofob-21 improves application of concrete, increases compactness, strength characteristics and durability of finished elements. Further more, Hidrofob-21 improves aesthetic appearance of the elements, edges are smooth and water-repellent, and the efflorescence is decreased.

Hidrofob-21 is also used as universal material for making transparent water-repellent surface impregnation membrane for porous surfaces form concrete, concrete blocks, bricks, natural stone etc. It is recommended to use as waterproofed pre-coating for secondary coatings based on epoxy resin and solvents.

## Properties:

- Increases concrete water-resistance;
- Reduces concrete capillary absorption;
- Increases concrete compactness;
- Prevents efflorescence;
- Treated surfaces can be over-coated using secondary protection and decorative coatings;
- Does not affect surface appearance;
- Does not act as vapor-barrier;
- Prevents penetration and migration of chlorides;
- Prevents concrete carbonation;

## Technical features:

Appearance:	White liquid
Specific weight: (at 20°C):	1,00 g/cm <sup>3</sup>
Chlorides content:	0%
Alkali content	< 4,0%

**Health hazard:** Hidrofob-21 does not contain toxic substances, however attention must be paid to avoid contact with the skin, eyes or not to be swallowed. In case of contact to skin or to eyes, rinsing is required with clean running water. If swallowed, medical assistance must be immediately requested.

**Fire:** Hidrofob-21 is a non-flammable liquid

**Cleaning and deposit:** Hidrofob-21 is cleaned with water. Old and used packaging must be disposed according to local regulations for that type of waste.

## Application:

Basic usage of Hidrofob-21 is to be used as concrete admixture, but it also can be used as transparent material for surface impregnation of hardened concrete, bricks, natural stone and other porous materials.

As concrete admixture, Hidrofob-21 is added in fresh concrete mixture during the concrete preparation. Recommended dosage is between 0,2-0,7% in relation to cement mass.

As surface impregnation material, Hidrofob-21 is applied with brush or spraying on the surface of porous material (concrete, brick or natural stone) - in which material penetrates and forms water-repellent layer. It is applied on dry and clean surface with open structure. Depending on the porosity of the surface, consumption can vary between 100-250 g/m<sup>2</sup>

## Effect from overdosing:

In case of overdosing, Hidrofob-21 can cause increase of entrained air in concrete mixture.

## Compatibility:

Hidrofob-21 is compatible with number of additives from ADING production program. If two or more additives are used in the concrete mixture, it is necessary to make preliminary tests. Various additives are dosed separately i.e. they are not to be inter-mixed prior to application in the concrete mixture.

Hidrofob-21 is compatible with all types of portland cement, including sulphate-resistant cements.

In order to achieve extreme water-resisting effects, it is recommended to use Hidrofob-21 in combination with Superfluid-21 generation of hyper-plasticizers.

## Packing:

Plastic cans: 1, 5, 10, 20 kg.  
Plastic barrels: 200 kg.

## Storage:

In original package at temperatures from 5°C to 35°C, protected from direct sunlight. Shelf life: 6 months.

In case the storage takes longer than 3 months, material must be mixed prior to use.