

AHYDROSIL® K

Silicone agent for water repellent treatment of mineral building materials

PRODUCT DESCRIPTION

AHYDROSIL® K is a water solution of silicone compounds in a form of concentrate.

TECHNICAL DATA

No.	PROPERTIES	AHYDROSIL® K
1.	Appearance	homogeneous, straw-yellow to brown coloured liquid
2.	Dilution	with water
3.	Density at 20°C	ca. 1,26 g/ml
4.	Viscosity at 20°C according to Ford cup no 4	ca. 16 s

APPLICATION

AHYDROSIL® K is a silicone agent designed for external surface impregnation of silicate bricks (no colour), gypsum blocks, concrete, cement-lime plasters and joints. Product in the concentrated form can be added to plasters or gypsum mixes and concrete.

AHYDROSIL® K is recommended especially for impregnation and anti-corrosion protection of:

- concrete bridge structures, reinforced and compressed concrete
- road building structures such us: tunnels, retaining walls and sound-absorbing walls, balustrades, fences etc.
- concrete paving of airport and concrete roads

AHYDROSIL® K can be used for injection damp-proofing (after dilution with water in ratio 1:5).

APPLICATION

AHYDROSIL® K can be used for external impregnation and for hydrophobization "in mix" as an addition to cement or gypsum used in making concrete, plaster mix or gypsum mortar.

Diluted with water AHYDROSIL® K is used for:

- surface impregnation in the ratio 1:6 to 1:8 (depending on material absorbency)
- joints protection in the ratio 1:10
- impregnation of airport concrete pavements in the ratio 1:6

As undiluted form it is recommended to add 2 kg of AHYDROSIL® K to each 100 kg of cement or gypsum used in making concrete, plaster mix or gypsum mortar decreasing at the same time quantity of water by 10%.

Surface impregnation-preparation of the substrate

The main condition of successful impregnation is a careful preparation of the surface. The porosity of the surface

should be uniform. The surface should be clean, degreased and dry. New cement-lime plasters and concrete can be impregnated not earlier than 21-28 days after finishing construction works. The substrate repaired using plasters or putties of the PCC type can be impregnated after 6 days. It is recommended that the impregnation should be performed in dry, rainless conditions at temperature from +5 to +30°C and relative atmosphere humidity 80%. The surface treated with the preparation acquires complete hydrophobic properties after approximately 24 hours. During this curing time the substrate should be protected against rain and soiling. Before starting the impregnation all surfaces which will not be impregnated (windows, metal parts, wooden parts, polished stone slabs etc.) should be well protected. Contaminated surfaces should be immediately washed with petroleum (white) spirit or agent **SARSIL® zmywacz**.

Substrate treatment

Impregnation can be performed by brushing, spraying as well as by immersion of small elements in the diluted product during ca. 5 min. It is recommended to impregnate the surface twice with small intervals using method "wet on wet". The second layer depending on the ambient temperature and porosity of the substrate should not be put later than 30 min after first impregnation when the surface is still wet. The treated surface should be impregnated accurately and homogeneously.

The product does not cause brightening or change the structure of impregnated surface. In case of low-absorbed substrate do not let unabsorbed material stay on the surface. After 15 min. from the impregnation the excess material must be removed from the surface.

Application limits

AHYDROSIL® K should not be applied for impregnation of:

- marble, granite and sandstone as they leave a hardly removable white deposit,
- coloured plasters sensitive to alkalis,
- in the places where a steady water action is forecast, e.g. in water reservoirs, swimming-pools, etc

Efficiency: 10-15 m² from 1 kg of concentrate diluted with water in the above ratio when impregnation is performed twice. The consumption of AHYDROSIL® K depends on the absorption of impregnated material and impregnation method.

In case of impregnation of concrete paving of airport (dilution in the ratio 1:6) the efficiency is 17.5 m² from 1 kg of product.

Storage:

Product should be stored in original containers in dry places at temperature from +5 to + 30°C. Protect against freezing.

Warranty period:

12 months from the production date.

Containers:

1, 30, 200, 1000 kg

Attention! AHYDROSIL® K as merchandised is alkaline agents that is why a special caution should be taken while emptying and diluting (glasses, rubber gloves). In case of a contact with skin the contaminated place should be heavily rinsed with cold water, embrocated with diluted vinegar and re-rinsed with water. For dilution of AHYDROSIL® K do not use pots made of zinc or aluminum, or soldered. The Safety Data Sheet for hazardous material must be read in all cases.

Approvals and Certificates:

Hygienic Certificate PZH (National Institute of Hygiene)
IBDiM National Technical Assesments no IBDiM-KOT-2017-0079

Testes performed by the Ateliers for Conservation of Cultural Heritage in Toruń

Test performed by the Air Force Institute of Technology in Warsaw

The decision of the Air Force Institute of Technology No. 35/24/2011 on suitability of the product to protect the slabs airport.

AHYDROSIL® K:

- provides perfect hydrophobic protection of surfaces for many years,
- penetrates the substrate uniformly creating a protective layer which has a perfect resistance to atmospheric factors, UV radiation and numerous chemical conditions,
- maintains "breathability" characteristics of substrate,
- reduces susceptibility to contamination and facilitates self-cleaning of the material under influence of atmospheric precipitation which guarantees attractive appearance of the surface for many years,
- protects against fungi and lichen growth

Producer's notes

The information contained in this document is given in good faith based on our current knowledge. However, this shall not constitute a guarantee for any specific product features. Each user bears the full responsibility for making its own determination as to the suitability of product for its own particular purpose. Because actual use of product by the user is beyond our control, such use is within the exclusive responsibility of the user, and we cannot be held responsible for any loss incurred through incorrect or faulty use of the product. For more detailed information please contact us in writing or by phone.



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