Technical Data Sheet
Issue: 24-09-2015

AQUAPROTECT

CE-marking in accordance with EN 1504-2
BAST listed

Properties:

AQUAPROTECT is an aqueous, solventless, creamy water repellent based on alkoxysilane/siloxane.

AQUAPROTECT is used for impregnating and protection of concrete surfaces to water, chlorides, de-icing salts and alkalis.

Unlike conventional liquid products *AQUAPROTECT* has a creamy consistency and is thixotropic. Therefore *AQUAPROTECT* can be applied in just one coat of the desired thickness (at the very most, two coats).

The silane/siloxane active ingredient penetrates the substrate within 30 minutes to several hours, the exact time depending on the porosity. On reaction with the substrate, it releases ethanol and is converted into a polymeric silicone resin. A creamy layer forms initially, but this then disappears completely.

AQUAPROTECT is crack-bridging up to 0.15 mm in case of pressured-water stress of 0.5 m.
In the rain the sealing effect is provided even up to a crack width of 0.2 mm (see test certificates).

Due to the special material basis of *AQUAPROTECT* pores and capillaries of treated concrete does not clog, nor does it affects its ability to "breathe".

Technical data:

Substance data:

Consistency	creamy	
Colour	white to yellowish	
Odour	hardly noticeable	
Spec. density (23°C)	approx. 0.9 g/cm^3	DIN EN ISO 2811-1
Active ingredient content	approx. 80 %	
Solubility in water	miscible	
Processing temperature	5 - 30°C	substrate temperature
Depth of penetration	≥ 10 mm*	

(* depending on quality of concrete up to 60 mm)

Processing:

New surfaces that are still unsoiled must be cleansed of coarse particles and dust deposits by sweeping or, if necessary, using compressed air. Fresh concrete surfaces can be impregnated with *AQUAPROTECT* after curing time of 28 days.
Surfaces already weathered, and those heavily soiled by oil, rubber residue, etc., must first cleansed using superheated steam.

AQUAPROTECT should always be performed on superficially dry concrete, i.e., when the surface of the concrete appears evenly dry (no more damp patches are visible).
In the event of unexpected rain, cover surfaces already impregnated and halt all further impregnation.

AQUAPROTECT is best applied to the concrete by the airless technique in the desired thickness. Brushes, lambskin rollers or spatulas may be used for smaller areas.

Up to 500 g/m^2 may be applied in one operation to vertical and horizontal concrete surfaces. At higher application rates, the impregnating agent might liquefy at the top of the concrete and it might start to run off.
A second coat is usually unnecessary, but it is nevertheless possible.

A quantity of 500 g/m^2 is used for crack-bridging. Full crack-bridging ability is reached until exposure time of 7 days.

AQUAPROTECT should not get into direct contact with bitumen. The resistance of insulating materials against *AQUAPROTECT* has to be determinate in the individual case.

Safety information:

AQUAPROTECT contains alkoxysilanes and siloxanes and is not classified as hazardous according to Regulation (EC) 1272/2008 (CLP). Even in the case of not classified products, the standard precautionary measures applicable for chemical products should be observed.

It is therefore necessary, before beginning processing, to become familiar with the precautions and safety advice as indicated in the material safety data sheet.

Packaging:

9 kg PE round bucket

Bigger packaging on request.

Storage:

Shelf life at least 6 month in original packaging when stored in dry conditions between 15-25°C, protected from heat, frost and direct sunlight.

After the expiration the use of the product is generally not recommended, unless an approval has been provided by TPH. This approval can only be obtained by the quality assurance department of TPH releasing the material after verification of main properties being within specification.

Disposal:

Small quantities of cured product residues can be disposed of as normal domestic waste. Dispose of not cured product components must be effected in accordance with the corresponding local regulations. For further information please refer to the material safety data sheets.

Test certificates:

Listed in "Compilation of certificated surface protection systems" in accordance with ZTV-ING, part 3, section 4 for *AQUAPROTECT* (OS-A); Bundesanstalt für Straßenwesen Bergisch-Gladbach 2011

Surface protection products according to DIN EN 1504-2:2005-01 class OS-1 "*AQUAPROTECT*"; QDB Frankfurt 2011

AQUAPROTECT Verification of crack-bridging / Determination of water tightness; MFPA Leipzig 2013

CE

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GER0513/11

EN 1504-2:2004

Surface protection products - Hydrophobic Impregnation
EN 1504-2: ZA.1a

Depth of penetration	class II: ≥ 10 mm
Water adsorption and resistance to alkali	adsorption ratio < 7,5 % compared with the untreated specimen < 10 % after immersion in alkali solution
Drying rate for hydrophobic impregnation	class I: > 30 %
Loss of mass after freeze-thaw salt stress	the loss of mass of the surface of the impregnated specimen must occur at least 20 cycles later than that of the not impregnated specimen
Release of dangerous substances	NPD

Legal notice:

The correct and thus successful application of our products is not subject to our control. A guarantee can be issued for the quality of our products within the framework of our sales and supply conditions, however not for successful processing. All data and specifications in this specification sheet are based on the present state of the art and the right to changes and adaptations for the sake of development remains explicitly reserved. The consumption specifications designated by us can be only average empirical values, where deviations are possible on an individual basis and therefore cannot be excluded by us.

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Waterproofing Systems