

KORATECT® HSC

Short description

Water-based, water-dilutable impregnating cream for the use as horizontal barrier against ascending humidity in masonry in accordance to WTA technical bulletin 4-4-04 „Masonry injection against capillary humidity“.

Product properties

KORATECT® HSC is a highly concentrated, thixotropic formulation for the easy application of a horizontal barrier with capillary breaking properties. Contrary to typically liquid preparations for the use as horizontal barrier, **KORATECT® HSC** allows an easy application without losses. Typically even the preparatory period is minimized significantly because of the special formulation.

KORATECT® HSC forms, catalyzed by residual alkalinity of masonry, a hydrophobic network within the masonry thus effectively blocking the capillary transport of moisture. **KORATECT® HSC** does not block the pores of masonry and gives no stone solidifying effects. Thus in selected cases and in cases of insufficient residual alkalinity of masonry a combined application of **KORATECT® HZS** or the sole application of **KORATECT® HZS** may lead to better results.

Application

General requirements

The damp-proof course must be planned taking into account all internal and external factors, e. g. ground level, separating or limiting walls. Care must be taken to ensure that the chemical damp-proof course achieved by the use of **KORATECT® HSC** is connected or even overlapped to already existing damp-proof layers.

For the treatment of inner walls typically the damp-proof layer is placed closed to ground level.

Soaked masonry will not be dried by the application of **KORATECT® HSC**. Only water permeation is deferred or even avoided. The distribution of **KORATECT® HSC** is typically not affected by high masonry humidity, rather it is improved.

The drying of the wall is not significantly influenced by the application of **KORATECT® HSC**. Thus the drying rate stays in the typical range of 20 to 25 mm per 30 days. Thus masonry of 240 mm thickness requires a drying time of approx. 9 to 10 months. These values might vary significantly in dependency of nature and condition of the masonry as well as ventilation and forced drying of the rooms.

Preparation of masonry

Due to its thixotropic properties of **KORATECT® HSC** elaborate filling of fissures or gaps may be omitted. Nevertheless, fissures ranging all through the masonry to the outer plaster layer must be sealed prior to the application of **KORATECT® HSC** using suitable material. Highly salt saturated or soaked layers of gypsum or plaster as well as foot rails or linings of the masonry should be removed prior to impregnation.

Placement of the drill holes

Drill holes should have a diameter of 12 mm up to a maximum of 30 mm and should be spaced approx. 100 mm apart. In no case a spacing of 150 mm between the drill holes should be exceeded. Although in most cases a single row application of

KORATECT[®] HSC

KORATECT[®] HSC gives a sufficient effect, a double-row arrangement of the drill holes is recommended. Typically the drill holes should be placed with a horizontal offset of 50 % and in a vertical displacement of 60 to 120 mm. Drill holes should be placed horizontally.

The depth of the drill holes should be in the range of wall thickness minus 40 mm. For the treatment of weakly absorbent masonry the placement of the drill holes in mortar joint is recommended. Typically the drill holes are placed, while observing the recommended spacing between the drill holes, in the intersecting areas of horizontal and vertical mortar fugues.

Application of product

KORATECT[®] HSC is delivered in buckets or open lid drums. For insertion of the product into masonry, **KORATECT[®] HSC** is transferred into commercially available compression spraying equipment or application guns and used to fill the drill holes. It is required to remove any filters or nozzles when using compression spraying equipment. Adaption of the equipment to match the size of the drill holes can be achieved e. g. by using suitable rubber tubings.

For applying the horizontal barrier the dosing system is injected as far as possible into the drill hole. While dosing the product uniformly the injection nozzle is pulled back leading to a completely filled drill hole. The treatment of strong absorbent masonry might require repeated filling of the drill hole. Thus it is recommended to apply the product to a larger area of masonry and subsequently controlling the residual amount of product in the drill hole. Applying the product to soaked masonry might require sealing the drill holes using suitable plugs in order to avoid uncontrollable leaking of the product. Potentially white stains might form on the dried surface which can easily be removed using a brush.

Consumption

Experience has shown that in most cases a consumption of about 1 kg / m² wall cross section is sufficient. However, we recommend calculating a safety margin of about 10 %.

Please note that the actual consumption is highly dependent on the porosity of the building material. For this reason specific consumption data need to be determined depending on the substrate.

Technical data*

Appearance	: white, creamy preparation
Active content in % (w/w)	: approx. 80
Density in g/mL	: approx. 0.9
pH-Value	: approx. 7

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Storage

In the unopened original container and at storage temperatures between **+5 °C** and **+40 °C**, **KORATECT[®] HSC** has a shelf life of **12** months. The product has to be protected against direct sunlight and freeze.

Storage beyond to the period indicated on the product label does not necessarily mean that the product is unusable. However, an inspection of the property values necessary for the intended use is essential for quality assurance reasons.

It is highly recommended to homogenize the product prior to usage by mild stirring or shaking in order to avoid possible separation effects

Further information on product safety and handling is given in the Material Safety Data Sheet.

This information and our technical advice – whether verbal, in writing or by way of trials – are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to check its validity and to test our products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Our products are sold in accordance with our General Conditions of Sale and Delivery; this is not valid for our trial products

*Informative properties not intended to be used as product specification

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