

BKM HZ250 Pro

Sustainable capillary barrier
technical data sheet

Art.-No.: P-001-103 25 Litre Canister

Art.-No.: P-001-102 200l Barrel

Art.-No.: P-001-101 1.000l IBC



Product description

BKM HZ250 Pro is a purely organic product for injection into mineral masonry for the purpose of creating a horizontal as well as areal injection barrier against rising damp and/or transverse moisture penetration.

Product advantages

- Ready to use mixture
- Not dilutable in water
- Low consumption due to large borehole spacing
- Hydrophobic
- Suitable for moisture penetrations up to 99.99%

Specification

Density according to DIN 51757:	0,77 g/cm ³
pH value:	neutral, alkali-free
Scent:	faint
Appearance:	colourless
Injection pressure:	0,5 – 6 bar
Processing temperature:	minimal 3°C

Application areas

BKM HZ250 Pro can be used on the following masonries:

- Brick and clinker masonry
- Natural stone / quarry stone masonry
- Sandstone masonry
- Sand-lime brick and aerated concrete
- Grid and hollow chamber stones

Product application

Horizontal barrier against rising damp

If there is no horizontal barrier, moisture is sucked up from the soil via the capillaries of the masonry. Injection with BKM-HZ250 Pro interrupts this process effectively and, above all, sustainably. A row of holes is drilled into the masonry at a distance of 25 cm at the desired blocking height (approx. 5-15 cm above the top of the floor or above the soil) at an angle of 30-50°.

In the area of masonry corners, one hole is drilled directly into a corner, the respective first hole to the sides has a distance of 10cm. (Fig. 1) For wall thicknesses over 60 cm, two holes must be drilled in the corner of the wall.

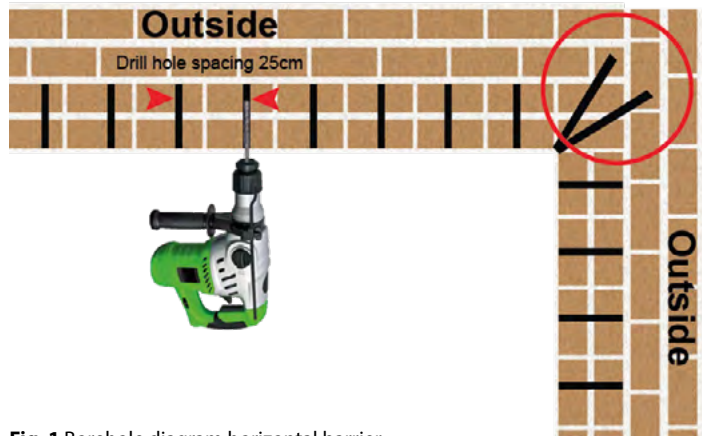


Fig. 1 Borehole diagram horizontal barrier

The borehole depth is half the wall thickness, for wall thicknesses over 60cm the borehole depth is approx. 2/3 of the respective wall thickness.

The BKM HZ250 Pro is then injected via an injection system, optimally with an electronic flow meter, using the low-pressure injection method via packers or lances.

Surface barrier against transverse moisture penetration

In the case of areas with a partial basement or overbuilt exterior walls where excavation is not possible, the leaking wall is sealed from the inside against external transverse moisture penetration using BKM HZ250 Pro.

For this purpose, BKM HZ250 Pro is injected into the entire wall body and thus the barrier is formed over the entire surface of the masonry. (Fig. 2).

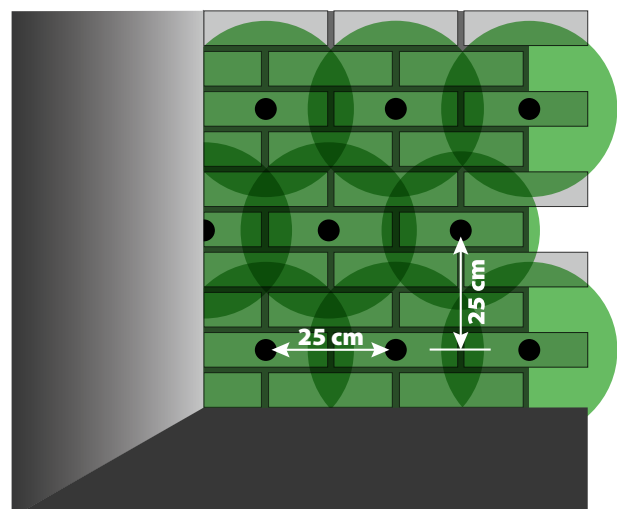


Fig. 2 Borehole diagram surface barrier

The boreholes are drilled at a distance of 25 cm, the other rows of boreholes are arranged one above the other at a distance of 25 cm and staggered like a chessboard. The last row of boreholes ends approx. 15 cm above ground level.

The corner areas must also be sufficiently supplied with BKM HZ250 Pro through additional boreholes. Surface barriers can also be applied partially; in this case the barrier is applied on all sides up to approx. 50 cm beyond the last recognisable point of damage.

Surface sealing against capillary transverse moisture penetration in hollow brick masonry is only possible with continuous and intact bearing joints or with capped hollow bricks.

This must be checked before starting the waterproofing work. If this cannot be determined perfectly, a functioning surface sealing cannot be guaranteed.

Further areas of application

Concrete/ natural and quarry stone

Blocks in concrete (tamped concrete) and in natural/quarry stone are possible with the following restrictions:

- Halved drill hole spacing of 12.5cm.
- Material input per borehole 1/2 of the normal quantity

In the case of natural stone masonry, the drill hole must be positioned in the stone so that the bearing joint or a cavity is hit on half of the masonry.

Grid and hollow chamber stones

BKM HZ250 Pro spreads without pressure in the masonry due to its extraordinarily high creep capacity. It is therefore not necessary to fill hollow spaces or chambers in the masonry with suspensions beforehand. Injection into hollow bricks is carried out in the upper third of the brick with the aim of accumulating BKM HZ250 Pro in the cavity. Distribution then takes place via the joint material.

Consumption

The consumption depends exclusively on the wall thickness, not on the type of masonry. The following formula is used for a simple calculation of consumption:

$$16,5 \times \text{Wall thickness in cm} = \text{Consumption in ml per borehole (Drill hole spacing from 25 cm)}$$

Example: 16,5 x 24 cm = ca. 400 ml per borehole.

BKM HZ 250 Pro Material required per borehole	
Wall thickness in cm	Material required in ml
12	200
24	400
36	600
50	850
60	1000
70	1200
80	1350
90	1500
100	1700

Comments

Drying duration

The drying duration of the masonry depends on the moisture penetration as well as additional good ventilation of the entire room. It is recommended to remove old plasters and paints after injection.

Condensation dryers can accelerate the drying process considerably. However, any drying devices may only be used after the reaction time of at least 3 weeks.

Before applying plasters, mineral paints as well as emulsion paints, a coat of water-free bonding emulsion is recommended. Diffusion-inhibiting plasters (e.g. cement plasters) and paints (e.g. oil-based paints) are unsuitable.

Delivery, Storage

Frost-free storage. Shelf life of unopened original containers is 12 months from date of manufacture. The product reacts with humidity. Opened containers must not be in contact with air or water for a longer period of time.

Ecology, safety, disposal

Ensure good ventilation during application and complete evaporation of the carrier material. We recommend wearing a face mask, protective goggles and gloves during application.

Further information on occupational safety, transport, ecology and disposal can be found in the respective current safety data sheet.

Legal notice

The above information, in particular the suggestions for processing and use of our products, are based on our knowledge and experience under normal circumstances, provided that the products have been stored and applied correctly. Due to the different materials, substrates and divergent working conditions, a guarantee of a working result or a liability, regardless of the legal relationship, cannot be justified on the basis of these instructions or verbal advice, unless we are accused of intent or gross negligence in this respect. In this respect, the user must prove that all knowledge necessary for a proper and promising assessment by BKM was provided to BKM in writing, in time and in full. The user must check the suitability of the products for the intended application. We reserve the right to make changes to product specifications.

Possible interactions with non-mineral wall components cannot be ruled out and do not constitute grounds for complaint.

We recommend carrying out a test injection before application.

Proprietary rights of third parties must be respected.

The latest product data sheet applies and must be requested from us. The responsibility for the successful application of our products lies with the user, as the use is beyond our control. However, we ensure the quality of our products in accordance with our conditions of sale and delivery, without guaranteeing the success of their application. Our data sheets represent advice based on our best knowledge, but no obligation can be derived from them. Our written consent is required to guarantee properties and application possibilities that go beyond the information recorded in the data sheets.

Further information can be found at:
www.bkm-mannesmann.de