

Novusan

Hydrophobic masonry injection in the low-pressure method
technical data sheet

- Art.-No.: P-001-104** 1 bottle of 500ml
Art.-No.: P-001-104.1 5 bottles of 500ml
Art.-No.: P-001-110 5 liter refill canister
Art.-No.: P-001-105 10 liter refill canister

Product description

NOVUSAN is a high-quality procedure suitable for both the creation of subsequent horizontal barriers and the generation of a surface barrier within masonry. It is injected into mineral masonry to create a barrier against rising damp and lateral moisture penetration. NOVUSAN can be used above water stagnation levels and complies with the requirements of the German WTA Directive E-4-10 "Injection procedures with certified injection materials against capillary water transport."

Product advantages

- Ready-to-use mixture
- Water-repellent
- Hydrophobic
- Suitable for moisture levels up to 99.9%
- High self-distribution in masonry

Specification

Density acc. to DIN 51757:	0,8 g/cm ³
pH value:	neutral, alkali-free
Smell:	neutral
Appearance:	colorless
Injection pressure:	0,5 – 6 bar
Processing temperature:	minimal 3°C

Application areas

Novusan can be used with the following types of masonry:

- Brick and clinker masonry
- Natural stone / rubble stone masonry
- Sandstone masonry
- Calcium silicate brick and aerated concrete (AAC)
- Lattice and hollow blocks
- Rammed concrete

Product application

Horizontal barrier against rising damp

In the absence of a horizontal barrier, moisture from the soil is drawn up through the capillaries of the masonry. Injection with Novusan effectively and sustainably interrupts this process. A series of drill holes is made at intervals of 20 cm at the desired barrier height (approximately 10-15 cm above the finished floor level or above the ground) at an angle of 30°-50° into the masonry. In the area of masonry corners, one drilling is placed directly into a corner, and the respective first drilling on each side is at a distance of 5 cm. **(Figure 1)** For wall thicknesses over 40 cm, two drillings must be made in the corner of the wall.

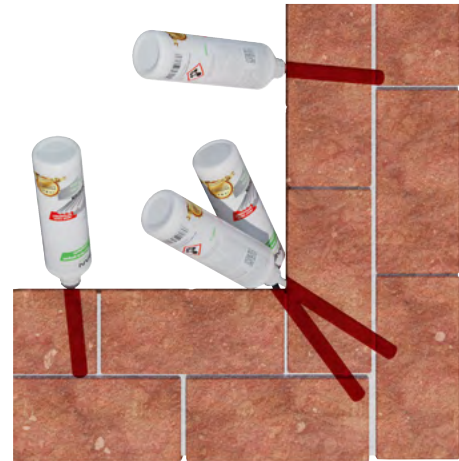


Fig. 1 Drilling Pattern for Horizontal Barrier

The drilling depth is half the wall thickness; for wall thicknesses over 40 cm, the drilling depth is approximately 2/3 of the respective wall thickness. Afterward, the bottles are inserted into the drill holes and remain there until they are completely emptied or, after an extended period (up to 2 weeks), no more material flows into the wall.

Surface barrier against transverse moisture penetration

In the case of partially subterranean areas or external walls that are built over and cannot be excavated, the leaky wall is sealed from the inside with Novusan to prevent external lateral moisture penetration.

For this purpose, Novusan is injected into the entire wall body, thus forming a barrier throughout the masonry. **(Figure 2)**

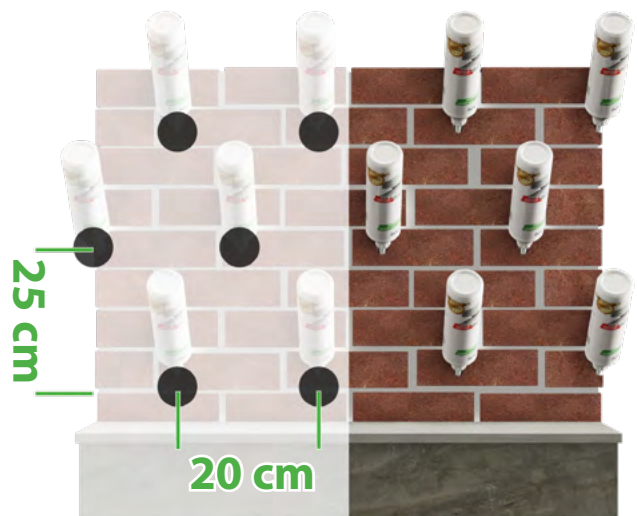


Fig. 2 Drilling Pattern for Area Barrier

Drill holes at intervals of 20 cm and stagger the subsequent rows of drill holes by 25 cm. The last row of drill holes should end approximately 15 cm above the ground level. In the corners, drillings are to be spaced 12.5 cm apart vertically to ensure adequate saturation of the corner areas. Area barriers can also be installed partially; in such cases, the barrier should extend approximately 50 cm beyond the last visible damage point in all directions. For hollow chamber bricks, a continuous bed joint must be present. This should be verified before starting the sealing work. If this cannot be clearly determined, a functional surface sealing cannot be guaranteed.

Further areas of application

Concrete/ natural and Rubble stone

Barriers in aerated concrete or calcium silicate are possible with the following limitations:

- The material requires a longer reaction time for pressureless injection.

In natural stone masonry, the drill hole must be set in the stone in such a way that it hits a bed joint or a cavity in half of the masonry.

Grid and hollow chamber stones

Novusan spreads pressurelessly in the masonry due to its extraordinarily high creep capacity. It is therefore not necessary to pre-fill cavities or chambers in the masonry with suspensions. The injection into hollow chamber stones is carried out in the upper third of the stone with the aim of enriching Novusan in the cavity. The distribution then takes place over the bed joint. In natural stone masonry, the drill hole must be set in the stone in such a way that it hits a bed joint or a cavity in half of the masonry.

Consumption

The consumption depends solely on the wall thickness, not on the type of masonry.

Material Requirements for Horizontal Barriers

For wall thicknesses up to 40 cm:

You only need **5 bottles** of Novusan for **1 meter** of barrier with a drill hole distance of 20 cm.

For wall thicknesses over 40 cm:

We recommend **2 rows of drill holes** with a 20 cm drill hole distance and a **10-15 cm** vertical distance.

You will then need **10 bottles** of Novusan for **1 meter** of barrier.

Material Requirements for Area Barriers

For wall thicknesses up to 40 cm:

You need only **20 bottles** of Novusan **per square meter**.

For wall thicknesses over 40 cm:

You need **40 bottles** of Novusan **per square meter**.

Comments

Drying duration

The time required for the masonry to dry to equilibrium moisture depends on the initial moisture level and the provision of good ventilation within the space. Drying equipment should not be used until at least 3 weeks after the application to allow for the reaction time.

After injection, damaged plasters and paints should be removed and replaced with plasters from the BKM.MANNESMANN restoration plaster system. Paint coatings must be exclusively done with breathable silicate paint.

Delivery, storage

The product should be stored frost-free. Unopened original containers have a shelf life of 12 months from the date of manufacture. The product reacts with humidity; therefore, opened containers should not be exposed to air or water for extended periods.

Ecology, safety, disposal

Surfaces that are not to be treated must be covered before starting the procedure. Natural stone (e.g., granite or marble) should be protected from contact with Novusan to prevent color deepening. We recommend wearing safety goggles and gloves during application. For further information on occupational safety, transport, ecology, and disposal, please refer to the 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**