

matrolan®
wall demineralization

Systematic wall demineralization
Reliable – successful – guaranteed!



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Wet walls can cause extreme damage such as a proliferation of mold.





High-tech with money-back guarantee: Matrolan wall demineralization systems

Wet walls can cause damage in many ways: they can not only cause health problems and depreciate the value of your property – selecting the appropriate method to obtain dry walls can also be a real challenge.

With Matrolan's wall demineralization systems, you are always on the safe side. Matrolan is based on a **proven procedure applied successfully thousands of times in the past decades**. This patented procedure is based on the **principle of active electro osmosis** which not only guarantees the demineralization and dehumidification of the wall but also its permanent dryness. Removing the soluble minerals will dehumidify the walls little by little.

Compared to other wall drying methods, Matrolan does not require extensive and costly construction works. Our specialists are by your side from the first review of your situation to selecting the appropriate system, its installation and the final verification of the specified parameters. Should those values not be maintained, you are covered by our money-back guarantee. We base our confidence on our vast experience and our **unique patented processes "Made in Germany"**.

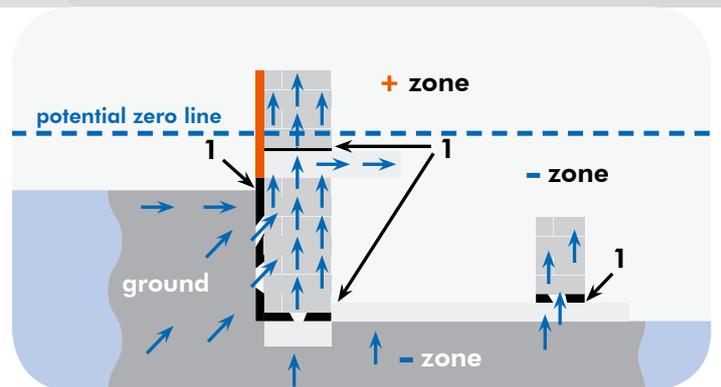


Proven technology: Matrolan has been successfully applied thousands of times in the past decades. Even very old buildings such as fortresses and castles have been dried to the guaranteed levels.

We would be pleased to provide you with an extensive list of references! Renovations in so-called "ice cellars" are practically impossible – even there, Matrolan was effectively put to the test.



Missing or defect vertical or horizontal barriers (1) create a direct contact between walls and ground which causes moisture to set in the structure. Humidity will then spread to a point where the ascending strengths (e.g. suction effect of the wall) and descending strengths (e.g. the force of gravity) are equal. This point is represented by a potential zero line.



By evaporating, water deposits minerals (commonly called saltpeter) on the surface of the wall.





There are reasons for walls being humid. But we have something against ascending humidity!

For the record, Matrolan is no universal remedy to use against all types of wall humidity. Therefore, an extensive humidity analysis is performed and samples of the minerals are drawn at the very beginning in order to determine whether the Matrolan system can be applied.

Ascending humidity is due to the direct contact of the walls with the ground. With old houses it is often because of missing barriers and with new ones, because of construction faults. Porous materials suck water just like a sponge and the minerals from the soil will stay in the walls once the water has evaporated. Over the years, such a continuous transport reaches the core of the walls and, finally, deposits the minerals on the surface. The result: the more dense the condition of the surface is, the greater the damage.

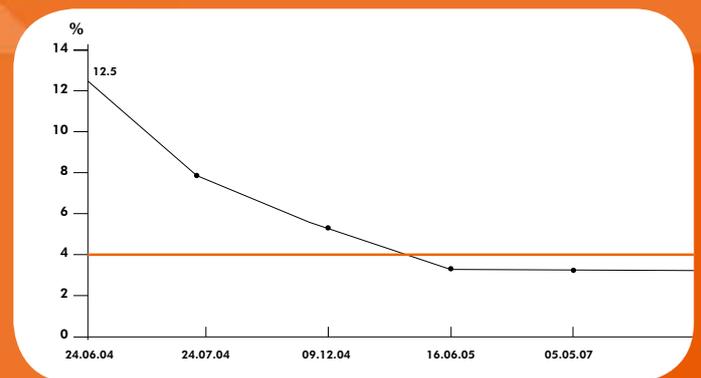
Another negative effect of ascending humidity is intensified by a simple law of nature: the crystallized minerals on the surface of the walls attract even more humidity from the surrounding air (hygroscopic moisture). A vicious circle is activated, but the Matrolan system uses another simple and effective law of nature to reverse it: the active electro osmosis. **By impressing an electric current between the wall (cathode) and a potential equalization (anode), the direction of the dissolved minerals can be determined (matrolanizing) – the moisture is then “pushed” out of the wall.**

*Whether on exterior walls or in rooms – ascending humidity is safely and permanently stopped with the Matrolan system.
Left picture: Accumulation of mold*



*Middle picture: Damages caused by humidity after superficial renovations – such esthetics cause new damage
Right picture: Paint and plaster are stripping, scum on the front*





Exemplary representation of reduced humidity in a wall: when first measured, the value was slightly over 12.5% - the red line shows the guaranteed value. After only a few months, the humidity level clearly fell and remained below the value, as shown in the graphic. Such repeatable thus solid results are achieved through a measuring system which always measures at the same spots and at defined times.

The Matrolan system does not damage the building fabrics and can therefore also be used on historic landmarked buildings.





Step by step towards a dry wall: Reliable – guaranteed – long-lasting!

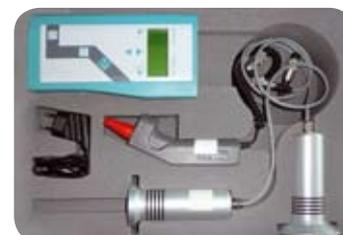
After a comprehensive analysis of the moisture content and the humidity spreading in the wall, a timetable is created in order to identify exactly which results are to be achieved in which periods of time. These values are then regularly checked and are the basis of our promise to you: long-lasting demineralized walls!

When our specialists **analyze the wall condition**, they make use of several different technologies. Firstly, the **moisture content of the wall** is determined by measuring the conductivity and resistance without damaging the fabric. Simultaneously, a half-quantitative or photometric **minerals analysis** is performed by sampling the wall. **The decision on whether to use the Matrolan process or not is only taken** after this fundamental analysis is complete.

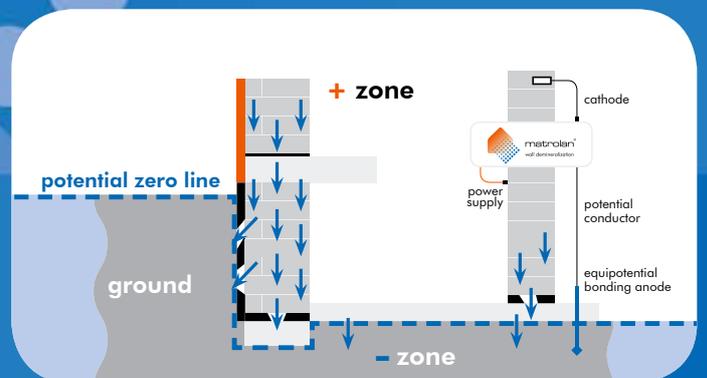
Once the system is installed, various measuring methods are applied: to determine the degree of moisture and its distribution in the wall, probes are inserted to measure the different resistance of dry and damp zones. At the same spots, measurements are regularly repeated to monitor the change of humidity in the walls. Additional measurement procedures like the CM-method or a repeated sampling of the wall material for mineral analysis are applied.

Measuring equipment to determine the degree of moisture in walls. A first crude data measurement is followed by a detail analysis. The resistance of the wall is measured by

inserting probes. Since moisture reduces the resistance in brickwork, an exact analysis of the different levels and distribution of humidity can therefore be made.



Active demineralization and dehydration: "Matronalization" works by impressing an external voltage between the walls and the ground. An electric potential is created which controls the transport of minerals in the brickwork and reverses the capillary rise by electric osmosis.



The equipotential bonding anode is connected with a specific voltage, creating a direct current connection between cathode and anode.

The Matrolan system comprises a control unit with a cathode circuit, a potential conductor and an equipotential bonding anode which is placed in the ground.





The Matrolan principle: Drying made easy

The advantages of the Matrolan process are clear: this patented technology has been proven successful for decades and is very inexpensive compared to other technologies. These are the best conditions you can easily rely on.

After evaluating the exact level of damage to the brickwork, determining the guaranteed dehumidification plan and inserting the probes, the Matrolan system is set up. Several electrodes are inserted in the brickwork and connected with the equipotential bonding anode in the ground through the Matrolan control unit. **To ensure the walls stay dry and demineralized, the system remains within the building.** Future damages to the brickwork such as saltpeter in the plaster are therefore prevented.

No need to worry about electromagnetic pollution: the power required to operate the system is proven to be safe. **The production of all the equipment is CE-certified, monitored by the Technical Inspection Authority (TÜV) and satisfies all regulations and specifications.** The success of the system is documented in our list of references, by independent architects, experts and well-known institutions. **Conclusion: the Matrolan system simply dries your walls and keeps them that way!**

Nothing is left to chance: after a detailed examination of the wall, the moisture level and distribution in the wall are monitored by using

probes (middle picture). On the right you can see the insertion of the equipotential bonding anode into the ground.



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Whether for a house, school, farm or old castle: with Matrolan, your walls will be free of minerals and therefore dry.

The key aspect is that we guarantee long-lasting dryness of your walls.



The Matrolan advantages at a glance: Simply compare our techniques to the conventional ones.

We don't need to mention the effects of damp walls (mold, loss in value): the people affected are already aware of the impacts on health, the value of the property and of course on the costs of heating. Matrolan provides you with a process which, compared to other techniques, is advantageous in every aspect.

Matrolan compared to conventional techniques:

- 🏠 **Smart investments rather than renovations:**
With Matrolan, your house remains intact. Instead of costly building works with noise, dirt and dust, just let the physics work for you.
- 🏠 **Clean and environment-friendly:**
No chemicals are used. Even historic land-marked buildings keep their shape: with the same materials and appearance.
- 🏠 **Matrolan – the cost-efficient, easy solution:**
60% cheaper than structural alterations: it **doesn't only spare your wallet, but also your nerves** because of its easy installation.

We keep our promises – that's guaranteed!

- 🏠 **Long-lasting dryness of the building:**
We stick to it – your house will be as dry and demineralized as we predicted.
- 🏠 **Money-back guarantee:**
Should dryness and demineralization not be as promised, you will be reimbursed.
- 🏠 **Trust is good – control is better:**
With regular and recorded measurements you have everything black on white.
- 🏠 **Quality, signed and sealed:**
The Matrolan process is patented, TÜV-approved, CE-certified and drying is performed according to state regulations. Hundreds of references and satisfied home owners in which the system is in use are convinced of its success.

*References near you:
Ask our partner on site.*



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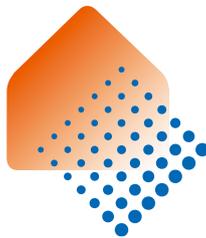
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