

**TREATMENT OF RISING DAMP IN EXISTING
MANSORY WITH PENETRON® CRYSTALLINE
WATERPROOFING SYSTEM ALONG WITH
REGULAR SEALCOAT™ MODIFIED POLYMER
WATERPROOFING SYSTEM**



PENETRON®
ADVANCED WATERPROOFING & PROTECTION SYSTEMS



Removal of existing coatings and static restoration of masonry

Initially, at a height of 10-15 cm above the point where the rising damp appears, the coatings are removed.

In case of masonry or solid bricks with existing internal cavities, these have to be filled, for their static restoration. After having sealed all the cavities with either PENETRON® WATERPLUG RAPID or PENETRON® MULTIPATCH (white/grey), holes of 20-25 mm in diameter have to be drilled, in an angle of 45 degrees and at a total depth of 2/3 of the thickness of the wall. The distance between the holes must be 25-35 cm, indicatively in 2 lines and in triangular layout.

Then, the holes are filled with either PENETRON® GROUT or PENETRON® GROUT INJECT, cement-based, high strength mortars for anchors and repairs, depending on the size of the holes. Also, PENETRON® GROUT INJECT can be applied with the process of injection and by using suitable machinery.



For the sealing of the holes of the masonry, in case of high humidity levels, on the following day, either material PENETRON® MULTIPATCH (white/grey) or PENETRON® WATERPLUG RAPID can be applied, for sealing the holes of the masonry.

Note: Some holes can be opened, as samples, with a big drill, in order to check the existing cavities inside the masonry. This will give a better view of the problem.

Treatment of rising damp

After the static restoration of the masonry, blind holes of 20-25 cm in diameter are drilled, internally or externally of the wall and downwards, in a 45-degree angle and a total depth of 2/3 of the thickness of the wall and the floor. The distance between the holes must be 15-20 cm in 2 lines and in triangular layout.

Then, the holes have to be well cleaned, with the use of compressed air. The holes must be fully moistened before the application of the pourable cementitious and waterproofing mortar with crystalline technology PENETRON®. After that, the remaining water is removed with the use of compressed air.

After having cleaned and moistened the holes very well, they are filled with the pourable cementitious and waterproofing mortar of crystalline technology, PENETRON®. (mixing 15-18 Lt water/bag). Repeat the procedure, if needed.



Consumption of PENETRON®: 1,2-1,3 Kg/Lt

In case of high levels of humidity in a depth of 3-4 cm, the following day, either PENETRON® MULTIPATCH (white/grey) or PENETRON® WATERPLUG RAPID can be applied for the sealing of the holes of the masonry. If the surfaces need to be smooth, PENETRON® MULTI PATCH, a cementitious, repairing material, can be used in thin layers.

At the joint between the wall and the floor, it is suggested that the meeting edges of vertical and horizontal surfaces are opened in a form of inverted wedge, approximately with 20 mm of width and at least 20 mm of depth or in a form of reversed Π, with dimensions 25X25X30 mm. Then, the modified polymer, repairing and rapid strength increasing mortar PENETRON® ACRYLIC PATCH can be applied.

Consumption of PENETRON® MULTI PATCH: ~2 Kg/Lt

The following day, all the cleaned surfaces must be fully moistened prior to the application of the waterproofing, cementitious coating mortar with polymers, PENETRON® SEALCOAT™ ELASTIC or FLEX. Apply the first layer evenly between the vertical wall and the floor, with a short hair brush, so as all the cavities and pores are fully filled. PENETRON® SEALCOAT™ ELASTIC or FLEX must be applied between the wall and the floor and must be reinforced with a fiberglass grid between layers (mesh 5x5 mm). The following day, apply a vertical second layer, as long as the first one remains intact.

Consumption of PENETRON® SEALCOAT: ~2,5 έως 3 Kg/m²

The total consumption depends on the roughness of the surface and the demands of the waterproofing. The use of fiberglass grid is expected to increase the total consumption of the system, up to approximately 3 kg/m² in 2 layers.

PENETRON® SEALCOAT™ (1 bag 22,68 kg) combined with 12 Kg PENECRYL™ ELASTIC results in a waterproofing with exceptional adhesion, flexibility, hyper elastic properties and excellent crack bridging abilities. (In the Product Data Sheet of SEALCOAT™, the system SEALCOAT® ELASTIC™ is referred as system C and is described at the end of page 2 and in page 3).



For better adhesion of the coating to follow, e.g. plaster, it is recommended to apply insoluble and in one layer, PRIMER STX 100™, an acrylic based primer for non-absorbent surfaces.

For the restoration of the coatings, it is recommended to apply a mixture of cement / sand in a ratio of 1:1 or 1:2 and then the application of cement mortar (in a ratio of 1:3 cement / sand), using building resin PENETRON® LATEX, along with the addition of PENETRON ADMIX® and of polypropylene fibers of 6 mm.

In order to place ceramic tiles on top of SEALCOAT™ SYSTEMS, use an appropriate FLEX type adhesive paste.

It is important to check, if there is moisture in the electrical network and that the colors to be used have high water vapor permeability.

It is important to clarify that, everything mentioned above isn't a case study, but a technical proposition, based on the information we have for a corresponding project and on our experience and knowledge so far. For more information, regarding the safe use, processing and storage of the products, contact PENETRON HELLAS S.A. and refer to the Product Data Sheet and Safety Data Sheet of each product you use.

The following is a schematic illustration of the repairs

