



# KEIM RENOVATION AND DEHUMIDIFYING RENDERS

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SUSTAINABLE AND SYSTEMATIC RENOVATION



MOISTURE AND SALTS CAN DESTROY THE BUILDING STRUCTURE.  
KEIM RESTORATION AND DEHUMIDIFYING RENDERS ARE THE REMEDY FOR THAT.



# SUSTAINABLE RENOVATION WITH KEIM POROSAN® AND KEIM SECCOPOR®

## DAMAGES TO THE BUILDING STRUCTURE

Rain, frost, wind, and condensation problems. Buildings are exposed to severe weather and environmental influences which can lead to severe damage to the structure. Due to a variety of causes moisture can penetrate the masonry. With the entering moisture, harmful salts such as nitrates, chlorides and sulphates are dissolved and transported. When the water evaporates, the salts recrystallise and increase in volume. This crystallisation pressure finally leads to spalling of plaster and paint. Soaked and salt-loaded masonry is characterised by numerous damages such as

- Damp stains
- Salt efflorescences
- Render and coating spalling

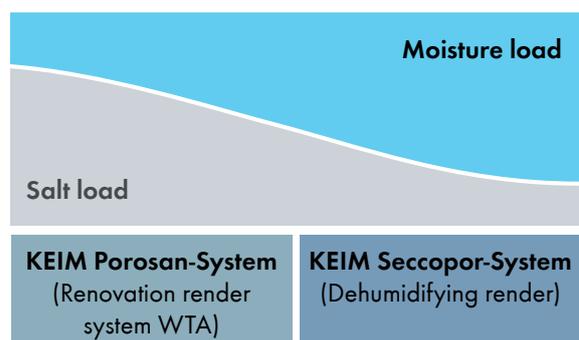
## SOLUTION-ORIENTED SYSTEMS

These damages cause great problems, particularly, in historic buildings, old structures, basements and plinth areas. Over the long term deposits of harmful salts lead to the destruction of the render structure and surfaces and represent a massive impairment. KEIM Porosan and KEIM Seccopor provide in principle two different and adapted solutions for the individual building situation. KEIM Porosan system is ideal for high salt loads due to its pore hydrophobic property, while KEIM Seccopor system is perfect thanks to its high drying performance in the case of high moisture loads such as of masonry damaged by flooding or condensation problems.



Damage patterns such as salt efflorescences and damp stains

**IN BRIEF:**  
**KEIM renovation and dehumidifying renders provide the perfect solution for every problem!**



# HIGH SALT PRESSURE AND MOISTURE? SOLUTION: KEIM POROSAN®

## HIGH SALT PRESSURE

KEIM Porosan renovation system is ideal when there is a high salt pressure. This system provides a powerful combination of pore hydrophobicity and high pore volume and good permeability at the same time to keep the surface beautiful and damage-free for many years.

Rising moisture reaches from the masonry into the render. There, the water evaporates. The benefit: Salts do not recrystallise on the surface, but within the plaster structure. No crystallisation pressure can build up thanks to the high pore space. Therefore, the render is not destroyed and the surfaces remain dry and free of efflorescences.



Spalling and salt efflorescences; high salt pressure

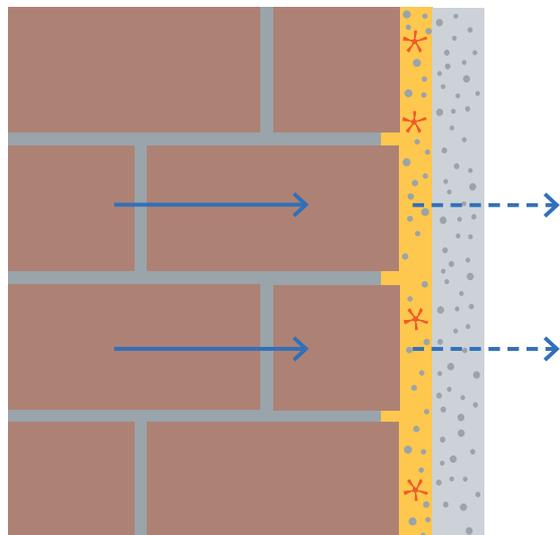
With a professionally planned and performed KEIM restoration plaster system as well as accompanying measures for structural and technological moisture protection, problem cases such as moisture and salt contamination can be successfully countered in the long term.

## OPTIMAL PROPERTIES

- High water vapour permeability
- Very good drying behaviour
- Frost-resistant aggregates
- Tension-free hardening
- Water-repellent formula
- Long service life – even on substrates on which conventional renders fail very quickly

KEIM Porosan renovation render systems have been approved by the WTA (= "International association for science and technology of building maintenance and monument preservation") and meet the requirements of the WTA Technical Information 2-9-04/D.

## FUNCTION PRINCIPLE RENOVATION RENDER



Capillary water absorption and evaporation when using a renovation render

- Liquid water
- - - - -→ Water vapour
- \* \* \* Crystallised salts

# HIGH MOISTURE AND CONDENSATION PROBLEMS? SOLUTION: KEIM SECCOPOR®

## IN THE CASE OF HIGH MOISTURE

When it comes to preventing condensation in basement rooms or when high levels of moisture in the masonry cannot be eliminated for structural reasons and there is only a low salt load, dehumidifying renders show their full strength.

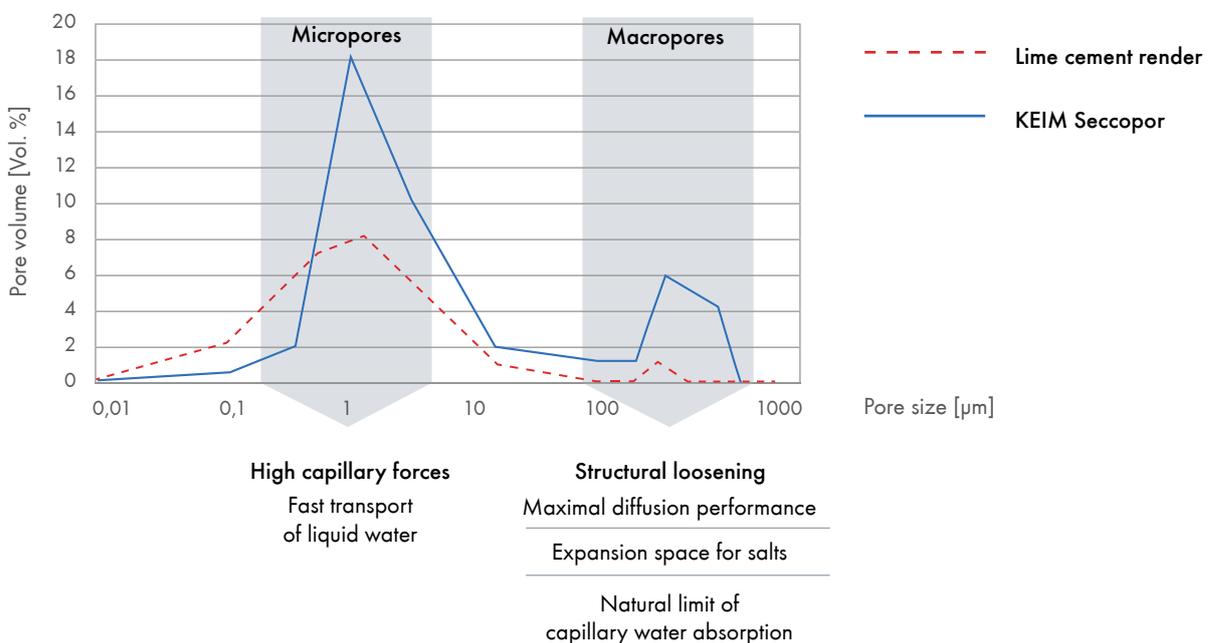
Thanks to a special pore geometry, KEIM Seccopor system regulates the moisture balance through fast capillary moisture transport in conjunction with water vapour diffusion. This reduces the rise of the water and the wall is virtually „sucked dry“. Particularly in the case of masonry damaged by flooding, the use of KEIM Seccopor can be much more efficient than a conventional hydrophobic render structure.



## OPTIMAL KEY FEATURES

- Unique drying behaviour
- No damp rise in the masonry
- High moisture transport capacity
- Natural regulation of room air humidity
- Low-tension structure
- Significantly shortened construction process thanks to short downtimes between processing steps

## THE PORES ARE CRUCIAL



# THE RIGHT RENOVATION SOLUTION FOR EVERY PROBLEM.

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Reference: Church in Affaltern (DE)

## **SYSTEMATIC SAFETY**

An essential precondition for the success of a KEIM renovation or dehumidification render is a professional evaluation of the existing building structure and the identification of the damage causes by taking samples and, if necessary, laboratory tests. We are also happy to support you with appropriate services.

Depending on the degree of salt or moisture loads, the appropriate materials and remediation solutions are then determined.



SUBSTRATE TESTING	
Moisture degree	
Salt degree	
<b>KEIM Porosan-System</b> (Renovation render system acc. to WTA)	<b>KEIM Seccopor-System</b> (Dehumidifying render)
Salt and moisture load	Mainly moisture load, possibly slight salt load load / condensation prevention in basements
Renovation render system acc. to WTA	Dehumidifying render
Removal of the old plaster at least 80 cm above the damage level.	Removal of the old plaster at least 80 cm above the damage level (a full surface refinish is required in the case of condensation problems).
Rough-cast key coat KEIM Porosan-Trass-Zement (coverage 50-70%) on non-absorbent masonry or quarry stone masonry.	Rough-cast key coat KEIM Porosan-Trass-Zement (coverage approx. 50%) on non-absorbent masonry or quarry stone masonry.
KEIM Porosan-Ausgleichsputz-NP (if a higher total render thickness is required or if a pore base render as defined in the WTA data sheet is required).	KEIM Seccopor-Grosso as base coat render.
Renovation render with KEIM Porosan-Trass-Sanierputz or Porosan-HF-Sanierputz. Under unfavorable conditions, such as high moisture load, extreme salinisation, two or more layers should be applied.	KEIM Seccopor-Grosso as coarse top coat render grain size 2.0 mm, colour shade grey. Alternative: KEIM Seccopor-Fino as fine top coat render grain size 0.6 mm, colour shade natural white.
Highly permeable KEIM facade paints	Highly permeable KEIM facade paints

**IN BRIEF:**

We are happy to support you and your projects - not only with suitable mineral products but also with our comprehensive range of services!



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