

**WACKER**

CREATING TOMORROW'S SOLUTIONS

SILRES®

**SILRES® BS**

FOR DAMP PROOFING

THE ELEMENT  
OF SUCCESS

Long-Lasting

**A**

Aesthetics

Better

**D**

Durability

Improved

**Ee**

Energy  
efficiency

BUILDING RESTORATION | DAMP PROOFING

HORIZONTAL BARRIER  
AGAINST RISING DAMP  
WITH SILRES® BS

# MOISTURE DESTROYS BUILDINGS

Damp is the enemy of every wall. In masonry, plasters and paintwork, it damages the materials, leads to increased energy consumption and restricts the uses to which rooms can be put by fostering mildew. This, in turn, can be harmful to residents' health.

The risk is particularly high with buildings that do not have vertical or horizontal moisture barriers and are close to the groundwater level, in direct contact with the ground or in other contact with water.

This includes buildings constructed prior to the end of the nineteenth century, in which the moisture barriers are generally non-existent or have seriously deteriorated.



Example of moisture damage: the Bugatti Palace in Molsheim (Alsace, France) displayed severe damage due to groundwater prior to its renovation in 2000.



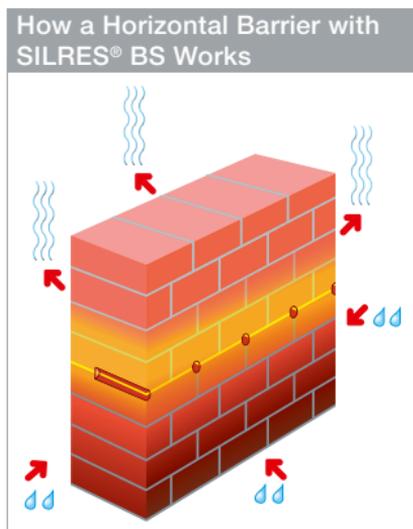
Close-up of a Bugatti Palace exterior wall after restoration with SILRES® BS.

# SILRES® BS PROTECTS AGAINST MOISTURE

Chemical damp proofing has proven both an efficient countermeasure where moisture damage already exists and a good preventive measure.

WACKER's SILRES® BS brand products – high-quality building-protection agents based on silicone resin technology – make the company a pioneer and technology leader.

Chemical damp proofing involves the injection of an agent directly into the masonry through drilled holes. SILRES® BS silicone micro-emulsion concentrates, and recently also SILRES® BS creams, have proven particularly successful here. Injected into the masonry, they form permanent bonds to yield a highly efficient horizontal barrier. This puts a stop to capillary rising damp and any associated transport of harmful substances, and allows the wall to dry out. It provides lasting protection for buildings – as verified by long-term studies and numerous reference objects.



Above the horizontal barrier created by chemical damp proofing (yellow), the masonry remains dry, even if moisture pushes up from below. Due to chemical damp proofing, the active reacts with the building material's silicate matrix and reduces surface tension. This puts a stop to capillary water transport and the wall dries out permanently.

## Benefits of a Horizontal Barrier with SILRES® BS

- Long-lasting aesthetic enhancement of exterior walls
- Increased value of the building
- Improved indoor air quality and comfort
- Rooms that had been unusable made habitable again
- Reduction in maintenance costs and renovation work
- Energy saving due to lower heating requirements

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# SILRES® BS SMK 550

## THE EFFICIENT SOLUTION FOR ALL TYPES OF MASONRY

SILRES® BS SMK 550 is a high-quality silicone microemulsion concentrate. Diluted in water, it is an outstanding chemical damp-proofing agent. This specialty product creates an effective horizontal barrier even at high moisture contents and thus puts a stop to rising damp in masonry.



### Benefits of SILRES® BS SMK 550

- Solvent-free, silane/siloxane-based silicone microemulsion concentrate
- Simple dilution by addition to tap water
- Injection preferably under pressure, but also possible without pressure
- Excellent penetration, even in masonry saturated with moisture
- Multi-step injection: cavity filling with microfine cement slurry followed by injection of silicone microemulsion
- Individually tailored solution for every building site
- WTA- and CSTC-certified

### Filling Cavities in Masonry with SILRES® BS SMK 550



# APPLICATION SILRES® BS SMK 550



1. Level the surface, apply sealing slurry and determine the drilling depth.



2. Mark the distance between the holes and drill them, then blow out drilling dust.



3. Insert packers.



4. Inject cement slurry in the case of cracked masonry.



5. Use a lance to clear injection channels.



6. Mix SILRES® BS SMK 550 with water and inject under pressure.



7. Apply repair plaster or brush off salts.

# SILRES® BS CREME D

## THE SIMPLE SOLUTION – EVEN WITHOUT PRESSURE

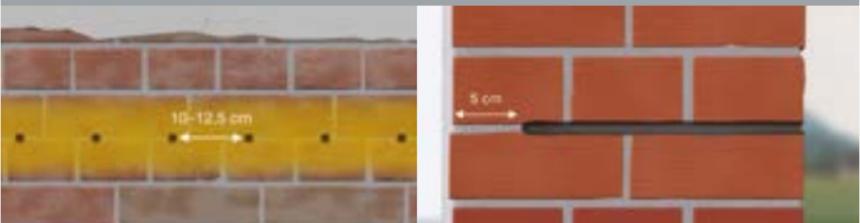
SILRES® BS Creme D is a highly efficient water-repellent agent. The ready-to-use product is ideal for chemical damp proofing – both with and without pressure. The water-repellent cream forms a lasting horizontal barrier against capillary rising damp.

### Benefits of SILRES® BS Creme D

- Aqueous, solvent-free, silane/siloxane-based, water-repellent cream
- Ready-to-use injection agent
- Simple injection without pressure using a cartridge gun or under slight pressure with a pump
- Optimum distribution in the mortar joint due to high active-agent content
- Effective even at high saturation levels (up to 95%)
- No elaborate preparation of the masonry necessary, e.g. sealing with cement slurry
- WTA-certified



Arrangement of Holes Drilled for Injection without Pressure with SILRES® BS Creme D



# APPLICATION SILRES® BS CREME D



1. Mark the distance between the holes and determine the drilling depth.



2. Drill.



3. Inject SILRES® BS Creme D.



4. Seal holes.



5. Brush off salts or apply repair plaster.



**WACKER**

**Wacker Chemie AG**  
Hanns-Seidel-Platz 4  
81737 München, Germany  
Tel. +49 89 6279-1741  
info@wacker.com

[www.wacker.com/silres](http://www.wacker.com/silres)

[www.wacker.com/socialmedia](http://www.wacker.com/socialmedia)



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