

WACKER

CREATING TOMORROW'S SOLUTIONS

ARCHITECTURAL COATINGS AND CONSTRUCTION MATERIALS

SILRES® PORTFOLIO – APPLICATION AREAS

Protecting Your Building Materials against Water

SILRES®

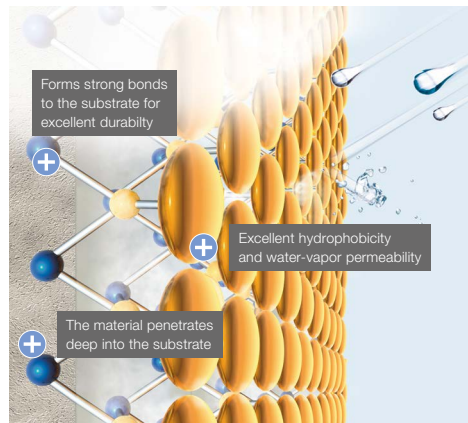
THE SILRES® PORTFOLIO

Tailored Solutions for a Wide Range of Applications, Climates and Substrates.

SILRES® makes the difference and protects buildings and surfaces from water damage, improving functionality and aesthetics. Facades look better for a longer time and remain energy efficient, even when in contact with humidity and water.

Preserving building materials – protecting assets

Based on water-repellent silicones, WACKER's SILRES® brand has been synonymous with effective building protection for decades. Its purpose is to preserve the value of old and new buildings and to protect them against weathering and structural damage.



High Effectiveness

Various construction materials, such as mineral substrates or wood, are porous, and contact with water produces a capillary effect. This can allow large volumes of water to penetrate the building material within a short time. SILRES® utilizes capillary active forces, penetrating into the pores of the mineral building material, where it is deposited on the pore walls. Water can no longer wet these siliconized pores, yet water-vapor permeability is unaffected.

Chemical Reaction

Quartz is the basic material for the production of silicone resin. Organo-modified silicones have a molecular structure that is compatible with the silicate matrix of mineral substrates. This accounts for the extraordinary efficiency of hydrophobic impregnation. The organic groups are directed toward the center of the capillaries and pores, while the active ingredient reacts with the silicate matrix of the building material, reducing surface tension within the capillaries and pores and blocking capillary action. The result is long-lasting hydrophobic protection.

Effects

- Low water uptake
- High water-vapor permeability
- Barrier against harmful, water-soluble salts
- The resulting hydrophobic impregnation is extremely resistant to cold, heat and UV light.

Longstanding expertise

By choosing our portfolio, you also profit from more than 50 years of experience and expertise. The first silicone resins for building protection originated from WACKER laboratories. Today, we provide you with a comprehensive, time-tested and innovative portfolio that includes tailored solutions for many applications, climates and substrates.

Partnering with the Pioneer

We work hand in hand with you, helping you select products and optimize formulations, testing your products and using our experience to assist you with application issues. Our dedicated experts and well-equipped labs are at your disposal.

Sustainability

Since 1991, WACKER has been committed to Responsible Care® to promote products that provide better sustainability through quality construction and superior durability. What is more, WACKER offers SILRES® eco BS products, working with sustainable raw materials and complying with the requirements of the REDcert2 certification scheme, based on mass balance.

Find out more details:
www.wacker.com/silres



SILRES® is a registered trademark of Wacker Chemie AG

Decorative Coatings



Effective binders and additives in durable coatings for interior and exterior use. Further tailor-made solutions for primers, powders and pH adjusters.

www.wacker.com/deco



Facade Impregnation



Hydrophobic impregnation agents for water-repellent treatments of facades.

www.wacker.com/facadeimpregnation



Concrete



Silane/siloxane creams, emulsions or liquids for surface treatment and concrete admixtures.

www.wacker.com/concreteprotection



Insulation Materials



Silicone emulsions that reduce the water absorption of mineral insulation materials.

www.wacker.com/insulation



Damp Proofing



Silicone microemulsion concentrate and cream for horizontal barriers that prevent rising damp in masonry.

www.wacker.com/dampproofing



Brick and Roof Tiles



Silicones used for hydrophobic impregnation treatment of brick and roof tiles.

www.wacker.com/roof



Gypsum



Water-repellent additives for use in the production of gypsum-based materials.

www.wacker.com/gypsum



Boards



Water-repellent additives for fiber cement boards and other dry construction solutions.

www.wacker.com/fibercementboards



Wood



Hydrophobic impregnation additives for wood treatment.

www.wacker.com/woodcoating



Anti-Stain & Color Enhancers



Surface treatment of mineral substrates with anti-stain, color enhancing and anti-graffiti effects.

www.wacker.com/surfacetreatment



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