ARCHITECTURAL COATINGS AND CONSTRUCTION MATERIALS

SILRES® PORTFOLIO – APPLICATION AREAS

Protecting Your Building Materials against Water
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.

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.

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.

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.

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

SILRES® is a registered trademark of Wacker Chemie AG
Brick and Roof Tiles
Silicones used for hydrophobic impregnation treatment of brick and roof tiles.
www.wacker.com/roof

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

Boards
Water-repellent additives for fiber cement boards and other dry construction solutions.
www.wacker.com/fibercementboards

Gypsum
Water-repellent additives for use in the production of gypsum-based materials.
www.wacker.com/gypsum

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

Insulation Materials
Silicone emulsions that reduce the water absorption of mineral insulation materials.
www.wacker.com/insulation

Concrete
Silane/siloxane creams, emulsions or liquids for surface treatment and concrete admixtures.
www.wacker.com/concreteprotection

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