

**WACKER**

CREATING TOMORROW'S SOLUTIONS

SILRES®

SILRES® WH FOR WOOD HYDROPHOBICITY  
PROVEN WATER PROTECTION FOR UP TO 17 YEARS

# THE CHALLENGE

Water is the greatest enemy of wood. Absorbing and releasing water causes wood to swell and shrink, leading to massive damage to the surface. Water dramatically accelerates the rotting process.

Wood used for outdoor applications should therefore be treated with a water-repellent impregnating agent or with a coating to protect it from moisture. Unfortunately, the effect wears off over time.

For this reason, we have specifically developed a functional, flexible silicone resin to protect wood against water. SILRES® WH is specifically designed for wood, providing long-lasting protection from water by keeping the water content very low – even after years of outdoor weathering. Plus, thanks to the excellent beading effect generally associated with silicones, customers can all rest assured that they have done their best to protect this valuable natural material.

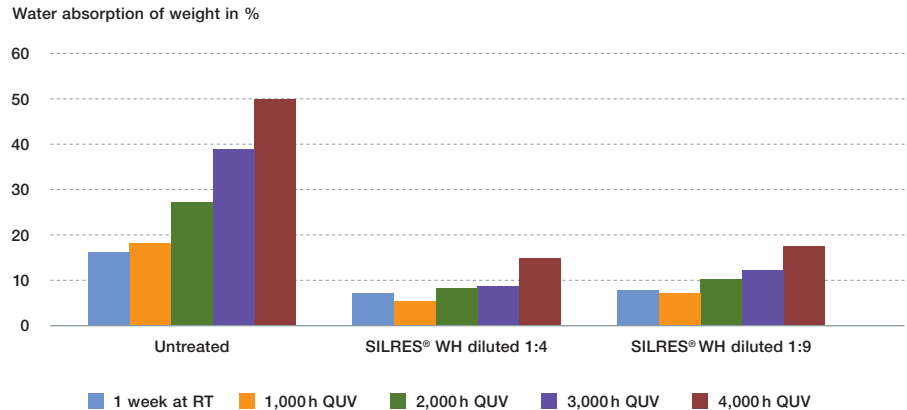
# WHAT CAN SILRES® WH DO?

- Water absorption is significantly lower in wood treated with SILRES® WH than it is in untreated wood – and remains extremely low, even after 4,000 hours of QUV weathering.
- Beading is clearly visible after exposure to the elements.



Treated with SILRES® WH

## Water absorption in floating test following QUV-B weathering



Product Description	
Product	SILRES® WH
Appearance	Milky, white
Product class	Silicone resin emulsion
Solids content, [wt%]	54%
Visco	Appr. 35
°C	> 100.0
Density, g/ml	Appr. 1

## FAQS

**How do I use SILRES® WH?** SILRES® WH is usually diluted 1:4 to 1:9 with water for direct application to wood. SILRES® WH can also be added undiluted to waterborne stains in concentrations of up to three percent.

**Can SILRES® WH reduce the use of biocides?** Yes. Using SILRES® WH provides long-lasting protection from water and from the damage it causes. That opens up the door to reductions in the use of biocides, especially fungicides. In the case of many biocides, it eliminates their use entirely.

**Can wood be painted after impregnation with SILRES® WH?** Wood treated with SILRES® WH can, in principle, be painted if some weathering of the impregnated substrate is allowed first. However, one thing needs to be remembered: smooth wooden surfaces will absorb only some of the silicone – the rest remains on the surface. As a result, and especially in the case of highly concentrated wood preservatives, paint adhesion may be restricted and leveling impaired. For this reason, SILRES® WH should not be employed as a primer.

**Will beading be visible right away?**

Yes, but the beading effect becomes best visible after it has been exposed to the elements for a while. Thanks to SILRES® WH, however, beading will then be visible for an unusually long time.

**Does SILRES® WH keep wood from graying?**

No. SILRES® WH does not prevent graying, because this is caused by UV radiation, and silicones are transparent to UV radiation. SILRES® WH does, however, help make graying uniform.

**WACKER**

Wacker Chemie AG  
Hanns-Seidel-Platz 4  
81737 München, Germany  
Tel. +49 89 6279-0  
info@wacker.com

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