REQUIRES NEW SOLUTIONS

SILRES® BS 168 has been developed by WACKER for a new generation of construction coatings. Compared to traditional pH adjusters, it:

- Improves the performance of a coating
- Is environmentally and user friendly
- Achieves better cost-effectiveness

WACKER

CREATING TOMORROW'S SOLUTIONS

SILRES®

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CONSTRUCTION I INTERIOR PAINTS

MORE THAN JUST A pH ADJUSTER

SILRES® BS 168 pH Adjuster for Water-Borne Wall Paints

THE NEXT GENERATION

In today's world, we attach increasing importance to health, safety and environmental protection. A well-known and critical issue in this context is the widespread use of volatile organic compounds (VOC) in construction coatings.

Traditional pH adjusters based on ammonia or organic amine fall under the VOC category and often emit highly irritating odors. The organic volatiles emitted by the coatings during the drying process affect users' health and pose a threat to the environment. They are also damaging to health during the coatings manufacturing process.

As a result, coating manufacturers are banking on to a new generation of pH adjusters.

Their requirements are now met by SILRES® BS 168, a versatile pH adjuster newly developed by WACKER.

Compared to traditional pH adjusters, SILRES® BS 168 is an odor-free product that contains low organic volatiles and improves the coating's water and scrub resistance.
It is ideal for a wide range of water-borne coating systems, in particular low-odor paints, low VOC interior paints and exterior wall paints.

SILRES® BS 168 – THE BETTER pH ADJUSTER

Performance Improvement

SILRES® BS 168 **enhances the water resistance** of water-borne coatings.

This is because SILRES® BS 168 can self-crosslink and forms three-dimensional hydrophobic networks which prevent water penetrating into the membrane of emulsion paints.

Compared with sodium hydroxide and ammonia, SILRES® BS 168 **permits higher abrasion cycles**. It even outperforms coatings using organic amine-based pH adjusters (see figure 1).

Environmentally Friendly

SILRES® BS 168 is odor-free and low VOC, thus substantially reducing health risks to both producers and users. In addition, the lower viscosity of SILRES® BS 168 improves the dispersibilty of pigments in the manufacturing of water-borne coatings. This reduces the consumption of dispersants (see figure 2).

Better Cost-Efficiency

As a highly efficient pH adjuster, a small dosage of SILRES® BS 168 is sufficient to create the desired effect.

For most water-borne coating systems, the recommended dosage of SILRES® BS 168 is 0.1% – 0.2% of the total weight of the paint. The dosage can be increased in systems with high acidity (e.g. vinyl acetate-acrylate and vinyl acetate- ethylene systems).

To achieve higher water and scrub resistance, the recommended dosage is 0.2% – 0.5%.

Figure 1: SILRES® BS 168 Permits Higher Abrasion Cycles

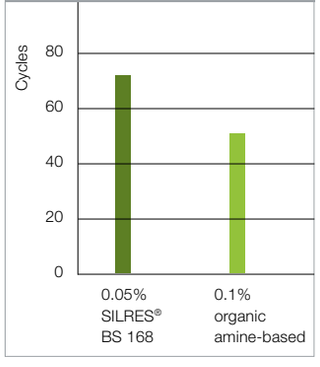
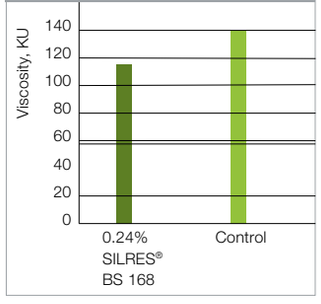


Figure 2: SILRES® BS 168 Achieves Lower Paste Viscosity*



* Pastes contain water, pigments and fillers only.

SILRES® BS 168 PRODUCT DATA

Properties	Value
Appearance	Clear to slightly turbid liquid
Solid content (wt%, approx.)	54
Density at 25°C (g/cm³, approx.)	1.4
pH value, approx.	14
Solvent	Water
Flash point	Non-flammable

Note: These figures are only intended as a guide and should not be used in preparing specifications.

Comparison with Common Products				
	Ammonia	**NaOH (10%)**	**Organic amine**	**SILRES® BS 168**
Odor-free	No	Yes	No	Yes
Water resistance	Good	Poor	Good	Excellent
Scrub resistance	Good	Poor	Good	Excellent