

SILRES[®] BS SMK 1311



Silane-Siloxane mixtures

SILRES[®] BS SMK 1311 is a solventless silicone microemulsion concentrate based on silanes and siloxanes that is diluted with water to yield microemulsions. The dilute, aqueous solution of SILRES[®] BS SMK 1311 serves as a high-quality, general-purpose water repellent for impregnating and priming mineral and even alkaline substrates.

SILRES[®] BS SMK 1311 serve also as chemical damp proofing agent in diluted aqueous solution.

Properties

- water-free and solventless silicone concentrate
- spontaneously dilute with drinking water, i. e. without the need for sophisticated mixing devices
- silicone microemulsions which have been activated with water must be used on the day of preparation

Advantages over ready-to-use products:

- lower packaging costs
- fewer problems with empty containers
- disposal (15 times less packaging)
- lower storage and transport costs The WTA certificate confirms the suitability of SILRES[®] BS SMK 1311 for this application.

Technical data

General Characteristics

Property	Condition	Value	Method
Density	25 °C	0.95 - 0.97 g/cm ³	DIN 51757
Viscosity, dynamic	25 °C	1 - 10 mPa·s	DIN 51562
Appearance	-	clear	-
Color	-	yellowish to reddish	-
Flash point	-	25 °C	not specified
Silane-/Siloxane content	-	100 wt. %	-

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

All the information provided is in accordance with the present state of our knowledge. Nonetheless, we disclaim any warranty or liability whatsoever and reserve the right, at any time, to effect technical alterations. The information provided, as well as the product's fitness for an intended application, should be checked by the buyer in preliminary trials. Contractual terms and conditions always take precedence. This disclaimer of warranty and liability also applies particularly in foreign countries with respect to third parties' rights.

Compliance

[Full compliance info plus certificates can be downloaded from the product website.](#)

Approvals SILRES® BS SMK 1311

Applications

- Construction Materials
- Hydrophobic Impregnation
- Impregnation of New and Existing Buildings

Application details

Diluted with water, SILRES® BS SMK 1311 is used as a general-purpose water repellent for absorbent, mineral and even alkaline substrates, such as natural stone, brick, concrete and sand-lime brick, as well as for mineral paints and stuccos.

SILRES® BS SMK 1311 is also suitable as a primer for dispersion-based paints and plasters, silicone resin paints and plasters, concrete coatings, and as a water repellent for the in-plant treatment of lightweight aggregates and clay building materials, aerated concrete, sand-lime brick, fibrous cement and mineral fibers.

Diluted with water - we recommend pouring SILRES® BS SMK 1311 into water - SILRES® BS SMK 1311 is injected under the effects of pressure via drilled holes to combat rising damp in masonry. The aim is to completely saturate the masonry in the injection zone. Pressure injection is usually preferred for high levels of damp.

Processing

Water repellent for impregnating and priming SILRES® BS SMK 1311 which has been diluted with water should be used on the day of dilution, i. e. only dilute as much product as can be used on the same day.

The dilution should be liberally applied in at least two coats, wet on wet, to the surface of the building material. It should not be applied under pressure or as an aerosol. Application by flooding is especially recommended. The construction material to be treated should look dry.

Before applying SILRES® BS SMK 1311, be sure to cover windows and other non-absorbent surfaces properly because the product cures so quickly that it will be extremely difficult, if not impossible, to remove after a few days. Wipe off any splashes on window panes immediately using soapy water or, if necessary, an organic solvent.

Dilution

Drinking water is suitable for the dilution of SILRES® BS SMK 1311. When adding water to SILRES® BS SMK 1311, briefly stir the mixture. Fine-particle opalescent microemulsions will result, whose appearance will not change even after their pot life has expired.

In general, good results will be obtained if SILRES® BS SMK 1311 is used diluted with water in a ratio of 1:9 to 1:14. (i. e. 1pbw SILRES® BS SMK 1311 + 9 to 14pbw water).

Drill hole injection against rising damp

The ready-to-use dilution of SILRES® BS SMK 1311 is injected into the stone / brickwork via holes. The holes are usually drilled at ground level (outside) or at floor level (inside). The distance between the boreholes depends on the absorbency of the construction material.

10 to 12cm is usually sufficient for homogeneous masonry. All holes should be approx. 5cm shorter than the thickness of the masonry and they must be cleaned of dust before injection.

Pressure injection is the best method of treating high levels of rising damp. Packers are inserted into the holes and the silicone microemulsion is forced through at a pressure of preferably 2 - 5 bar. Cavities in inhomogeneous masonry should be filled with a cement slurry before.

Very high levels of damp may be treated by activating the silicone microemulsion with blends of alkaline products or pure silicates after 1 - 2 days. The active agents (alkylsilicates) are deposited immediately and the result is faster, better build-up of the horizontal damp course.

The masonry in the injection zone must be completely saturated with the microemulsion in order for the damp course to be fully functional. This is achieved by allowing sufficient time for injection (5 to 10 minutes for pressure injection).

For injection, we recommend diluting SILRES® BS SMK 1311 with drinking water in the ratio 1 : 12. Only as much of the product as can be used on the same day should be prepared.

Packaging and storage

Storage

The containers must be protected against sunlight. Stir well before taking emulsion from drums. The 'Best use before end' date of each batch is shown on the product label. Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

Safety notes

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from WACKER subsidiaries or may be printed via WACKER web site <http://www.wacker.com>.

QR Code SILRES® BS SMK 1311



For technical, quality or product safety questions, please contact:

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