

SILRES[®] BS 1705



Silane Emulsions

SILRES[®] BS 1705 is a water-thinnable, solventless emulsion, based on a mixture of silane and siloxane.

SILRES[®] BS 1705 serves as a high-quality specialty water repellent for impregnating cement based products, such as fiber cement.

Properties

- good depth of penetration
- high stability against alkaline conditions
- greatly reduces water absorption
- especially suited for fiber cement products within a wide density range

After application to the fiber cement SILRES[®] BS 1705 reacts with atmospheric moisture or pore water under formation of the hydrophobic layer while liberating alcohol. The active ingredient greatly lowers the water absorbency of the fiber cement product, which nevertheless retains a very high degree of water vapour permeability since neither pores nor capillaries are clogged.

SILRES[®] BS 1705 contains a mixture of silanes and siloxanes that are susceptible to hydrolysis. Hydrolysis occurs only after application to the substrate. Alcohol is released and the emulsion is converted into a silicone resin water repellent.

Technical data

General Characteristics

Property	Condition	Value	Method
Appearance	-	white, milky liquid	-
Content	-	50 %	-
Density	25 °C	0.95 g/cm ³	-
Viscosity, dynamic	-	60 mPa·s	Brookfield

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.

Applications

- Fiber Cement Boards
- Boards & Panels

Application details

SILRES® BS 1705 is recommended as a water repellent impregnating agent for normal and reinforced fiber cement elements.

SILRES® BS 1705 may be used in undiluted form or diluted with water. The concentration to be applied depends on the quality or porosity of the fiber cement substrate and the desired depth of penetration of the water-repellent agent. Since the penetration depth of the active silane/siloxane component depends directly on the concentration of active ingredient in the water-repellent agent, higher concentrations should be used for high-quality fiber cement with lower porosity.

There is no general recommendation for an applied quantity of SILRES® BS 1705. This depends on the quality of the fiber cement product and the desired water repellency; a general recommendation cannot be given. Individual tests must always be conducted in order to define the necessary quantities. For initial tests an amount of 100 g/m² regarding active content may be applied in order to achieve a reduction in water uptake of around 80%.

Packaging and storage

Storage

SILRES® BS 1705 must be stored in the tightly closed original container. 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.

The more dilute the emulsion is, the more it tends to cream. However, this phase separation may be reversed by brief stirring or agitation. This will restore it to a homogeneous emulsion, without loss of efficacy.

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 1705



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

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