

# SILRES<sup>®</sup> BS 5138



## Silicone Fluid Emulsions

SILRES<sup>®</sup> BS 5138 is a highly efficient aqueous and water-dilutable emulsion based on a non-reactive Polydimethylsiloxane. It is used especially for hydrophobation of glass- and stone wool. It exhibits high thermal stability and good compatibility with common binders, like phenolic resins.

SILRES<sup>®</sup> BS 5138 can also be used for hydrophobation of porous mineral insulation materials like Perlite, Vermiculite oder Expanded Clay.



## Properties

SILRES<sup>®</sup> BS 5138 has an ideal viscosity for the feeding and dilution process during application. Once sprayed onto the substrate SILRES<sup>®</sup> BS 5138, especially in comparison to other emulsions based on reactive polydimethylsiloxanes, shows very high thermal stability in the manufacturing process as well as in the application of the insulation material.

## Technical data

### General Characteristics

Property	Condition	Value	Method
Active content	-	50 %	-
Appearance	-	white, milky liquid	-
Density	-	approx. 1.0 g/cm <sup>3</sup>	-

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.

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

## Applications

- Insulation Materials

### Application details

After compatibility testing with the binder, SILRES® BS 5138 is mixed with the binder applied by spraying. Alternatively SILRES® BS 5138 can also be applied separately by using a second dosage point together or shortly before dosing the binder.

SILRES® BS 5138 can be diluted with water in any concentration. It is recommended to add water to the emulsion.

The added amount regarding the mass of mineral fibers varies from 0.05 to 0.2 % for stone wool and 0.1 to 0.3 % for glass wool (calculated on dry mass of the final product). The added amount depends on the surface of the insulation material as well as the desired degree of hydrophobicity of the final product, a general recommendation can not be given. Individual tests must always be conducted in order to define the necessary quantities.

SILRES® BS 5138 has been developed and optimized to be compatible with phenolic resin binders and tolerates without surplus of ammonia varying processing and formulating conditions.

Based on the large variety of phenolic resins used plus further specific additives, however, a specific compatibility test in each plant is highly recommended. The stability of mixtures with other components is strongly depending on many factors, e.g. degree of dilution, therefore it is recommended to prepare the mixture directly before use.

When used for hydrophobation of unbound mineral wool, so called Blowing Wool, it has to be taken in consideration that too high dosage might affect flowability of the product and blocking of the injectors might occur.

Furthermore SILRES® BS 5138 can be used for hydrophobation of expanded minerals. For the hydrophobation of these materials, SILRES® BS 5138 is also applied by spraying. The added amount varies between 0.1 and 0.5 % based on dry mass of the final product, and depends on the nature of the material as well as the surface area and the desired degree of hydrophobicity. To simplify the production process, the emulsion may also be applied to warm material. When applied to warm or hot materials, SILRES® BS 5138 shows higher thermal stability than comparable emulsions based on reactive polydimethylsiloxanes.

### Packaging and storage

#### Storage

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.

### QR Code SILRES® BS 5138



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

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