

SILRES[®] BS 6921



Silane-Modified Polymers

SILRES[®] BS 6921 is a silane-terminated binder based on α -silane technology for the impregnation of mineral substrates or as a thin layer coating for mineral substrates

SILRES[®] BS 6921 can be applied in combination with SILRES[®] BS 6920 in case of a more soft formulation is required.

Properties

α -silane-terminated polyethers represent a noteworthy group of moisture curing binders that do not require tin catalysis
SILRES[®] BS 6921 is a transparent, low viscosity binder.

Primarily, cure via amines is recommended, with particular focus on amino-silanes. Pot life as well as speed of through-cure can be adjusted by the aminosilane loading.

GENIOSIL[®] DAPTM (~ 5 %) is recommended.

For application below temperatures of 15°C addition of catalyst (ca. 0.2%, e.g. TMG (1, 1, 3, 3-tetramethylguanidine)) is required

SILRES[®] BS 6921 is characterised by:

- low viscosity
- solvent and plasticizer free
- easy handling and dosing
- resistant to moisture
- cure without tin catalyst
- non-labeling

Technical data

General Characteristics

Property	Condition	Value	Method
Density	20 °C 1013 hPa	1.13 g/cm ³	DIN 51757
Flash point	-	127 °C	ISO 2719
Viscosity, kinematic	20 °C	291 mm ² /s	DIN 51562

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

- Concrete Flooring

Application details

Formulations based on SILRES® BS 6921 are applied for stain-resistant impregnation and coating of mineral substrates, e. g. polished or non-polished concrete floors, paving stones, clinker, bricks and natural stone.

For the impregnation of absorbent substrates SILRES® BS 6921 is treated with 5 % of the aminosilane GENIOSIL® DAPTM as the catalyst. If necessary the viscosity of the formulation can be reduced by the addition of 10 % SILRES® BS 1316.

For substrates with poor or no absorbency, a catalyzed SILRES® BS 6921 version can be applied as a clear coating. The layer thickness should not exceed 100 µm to ensure full and complete cure. Cure is usually complete after 24 h. In the case of higher absorbent substrates a second coating is recommended. In the case of coatings it is recommended to add UV stabilizers since even for interior use UV exposure cannot be excluded.

Further formulating components comprise rheological additives and matting agents.

Additionally, pigmented and filled coatings are equally possible with SILRES® BS 6921. The binder content will be up to ~ 40 %.

The catalysed formulations are sensitive towards moisture, however, stable in sealed packaging for at least 1 year. This is the unique benefit of SILRES® BS 6921: Final formulations can be offered as one part systems for the end user.

SILRES® BS 6921 imparts high stain-resistance when applied as an impregnation or as a coating (e.g against stains like coffee, tea, ketchup, orange juice, ink, red wine, household and engine oils etc). Surfaces exhibit high strength, are exceedingly scratch-resistant and impervious to typical cleaning agents.

For formulators:

SILRES® BS 6921 is easily mixed in a standard mixer or dissolver with the formulation ingredients. The catalyst GENIOSIL® DAPTM is added as the final component.

Upon catalyst addition the mixture becomes moisture sensitive, thus air contact must be avoided. Use of an inert gas or fast filling in sealed packaging is recommended.

For the end user:

During application of formulations based on SILRES® BS 6921 whether for impregnation or coating, the surface must be dry and clean. To define the optimum amount and to check applicative behavior it is recommended to prepare a separate test surface. The material can be applied with a cleaning mop, shorthair roller or a brush. Airless spray application is equally possible.

The open time of the formulation examples outlined here is ~ 20 min depending on temperature and humidity. Treated surfaces are trafficable and durable after 24 hours.

Depending on the absorbency behavior of the substrate a second application (after 24 hours) may be necessary to attain a homogeneous finish.

Depending on the absorbency behavior of the substrate ~ 50 - 150 g/m² are typically required for the first layer.

In the case of a second layer, by far a lower amount of material will be needed (~ 50 %). Polishing is possible after 24 hours.

Packaging and storage

Storage

Further information for storage:

Store in a dry and cool place. Protect against moisture. Store container in a well ventilated place.

Conditions for storage rooms and vessels:

Observe local/state/federal regulations.

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

Advice for storage of incompatible materials:

Observe local/state/federal regulations.

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 6921



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

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