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Chemicals BV

for tomorrow's
Technology

# SilStab™

## Stabilized Potassium Silicate Solutions

for tomorrow's
World

# Stabilized Potassium Silicate Solutions

**Renders, Plaster and Primers**
**Outdoor/Indoor Paints**
**Coatings of Construction- and Insulation Boards**

## General

The SilStab™ products are stabilized Potassium Silicate Solutions with a high Silica content. Due to the additional stabilization these SilStab™ products can easily be combined with different kind of pigments and fillers without coagulation or gelling of the paint. Combined with the hyper dispersant ADDAPT® ADDISP™ 600N, dispersing properties can be further improved to minimize sedimentation and syneresis.

These SilStab™ Silicates give hardened surfaces, better silicified with low efflorence. SilStab™ grades like SilStab™ HL+ and SilStab™ DC3 are further hydrophobic modified to even further improve the high water resistance.

The SilStab™ products can also easily be combined with polymer dispersions like Acrylate-, Styrene/Acrylic-, Styrene/Butadiene- or VA/VeoVa dispersions.

## The SilStab™ grades

| Product name | % K-Silicate | Density | Viscosity* g/cm³ | Hydrophobic Modified |
|---|---|---|---|---|
| **SilStab L50** | 7 - 9 | Av.: 1.195 | < 50 m.Pa.s | X |
| **SilStab L100** | 22 - 25 | Av.: 1.225 | < 50 m.Pa.s | X |
| **SilStab HL+** | 23 - 26 | Av.: 1.405 | < 50 m.Pa.s | √ |
| **SilStab DC3** | 22 - 25 | Av.: 1.325 | < 50 m.Pa.s | √ |

* 20 ºC (Brookfield #2 @ 30rpm)

# Applications

SilStab™ products can be used in a wide variety of applications for coatings in the building industry without or in combination with an organic binder. Depending on the SilStab™ grade, Organo-Silicate paints can be formulated according to German Standard VOB/C DIN 18.363, §2.4.6.

# Application Properties

| | |
|---|---|
| **Silicifies Surfaces – High Durability** | **Excellent penetration in porous substrates** |
| **High water vapour permeability** | **(High) water resistance** |
| **Gives Low Dirt Pick-up** | **Non-Flammable** |
| **Hard en scratch resistant surfaces** | **Non-Yellowing / UV Resistant** |
| **Affinity with mineral surfaces** | **Contain no nutrients for algae and fungi** |

# Use in Renders (Putz), Paints and Primers

## Dispersions

When used in combination with polymer emulsions or dispersions like Pure Acrylic, Styrene/Acrylic and Va/VeoVa, care should be taken that these binders are based on alkaline and saponification resistant polymers with low MFFT!

## Extenders/Fillers and Adhesives

Inorganic materials are preferred and should not contain free multi-valent cations. Reactive fillers should be avoided as they will influence viscosity and might cause gelation.

Inert additives that are alkaline and saponification resistant are suitable for all stabilized SilStab™ containing formulations.

The Universal Additive like ADDAPT® BioWet™ P 77 or P 80 and Pigment Dispersant like ADDAPT® ADDISP™ 600N are excellently suitable to be used in combination with SilStab™ products in the formulation of Renders (Putz) and Paint (see separate brochures). Guide formulations are available upon request.

## Primer Formulations

SilStab™ products are solutions and not colloidal systems. They therefore have excellent and rapid penetration in dry porous substrates. Due to their penetration power and consequently the process called “silicification”, a silicate matrix is formed with, depending on the concentration, intumescent properties.

# CONTACT INFORMATION

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