# NEUBURG SILICEOUS EARTH IN SILICATE EMULSION PAINTS

## OBJECTIVE

# Optimizing rheological stability and shelf life of paint with Sillitin V 88 and Sillitin Z 89

### FORMULATION

Water deionized



Betolin V 30	Thickener	0.2
Sapetin D 20	Dispersant	0.2
Betolin Quart 44	Stabilizer for silicate solution	0.3
Byk 032	Defoamer	0.2
Silres BS 1306	Water repellent	1.0
Betolin A 11	Viscosity stabilizer	0.5
Crenox R-KB-5	Titanium dioxide	10.0
Fillers varied	Silicates (Base), Carbonates, Neuburg Siliceous Earth and combinations	33.0
Mowilith DM 765	Styrene / acrylic acid ester dispersion (50 % w/w)	8.0
Betolin P 35	Potassium silicate solution (29 % w/w)	18.0



#### Basis: Guide formulation from Wöllner

## SUMMARY

Neuburg Siliceous Earth benefits compared to the use of silicate and especially carbonate fillers:

- Sediment-free storage with enhanced rheological stability
- Best stabilisation and thickening protection for prolonged shelf life with NSE used alone
- Prerequisite for consistently good processing properties
- High color neutrality, brightness and opacity

Sillitin V 88 Low viscosity and yield point level even at high dosage. Easier and constant processability at high shear conditions (application). A coarser grade with strong matting effect.

Sillitin Z 89 Viscosity / yield point adjustable via dosage level. Chiefly stabilizing in viscosity at low shear conditions. Sedimentation protection (storage) and better sag resistance / edge covering during application. Finer grade for improved hiding power or partial TiO<sub>2</sub> replacement.

For very color-critical applications, the calcined Silfit Z 91 is recommended.

Use of all products preferably with silicate fillers or pure. The Neuburg Siliceous Earth grades can also be combined with one another so that many properties can be specifically adapted to the requirements.



VM-0/0520/05.2020 (TB/PP NSE in Silicate Emulsion Paints)

## **NEUBURG SILICEOUS EARTH IN SILICATE EMULSION PAINTS**

## RESULTS

Filler Package [pbw]	Base	Sillitin V 88				Sillitin Z 89			
Silicate Carbonate	$\checkmark$		$\checkmark$	$\checkmark$	pure	$\checkmark$	$\checkmark$	$\checkmark$	pure
Neuburg Siliceous Earth		8	8	25	33	8	8	25	33
Siliplast 910 Feldspar / Kaolin / Quartz	25	25				25			



VM-0/0520/05.2020 (TB/PP NSE in Silicate Emulsion Paints)