



## GLOXIL MATT SL

### 1. Description

GLOXIL matt SL is a 15% aqueous silica dispersion modified with specific additives adapted to the matting agent and the intended application.

During film formation of dispersions, the inclusion of matting agent particles will, therefore, be improved. As a result, despite and along with a matting action, films with good water resistance and stain resistance will be obtained.

### Characteristics

Appearance		white, pasty
Residue > 40 µm		< 5 mg/kg
Particle size distribution	D <sub>50</sub>	8.5 – 10.5 µm
pH value		6 – 7.5

### Packaging

Barrel		50 kg
Barrel		200 kg
IBC		1.000 kg

### Shelf life

2 years if used properly. Protect from frost and direct sunlight. Stir up before use.

Information for safe storage, transport and handling, please refer to the safety data sheet.



## 2. Applications

GLOXIL matt SL is used as a pre-dispersed matting agent slurry in water-based coatings, in particular clear coats for wood.

Optimum effects are obtained in dispersion binders, which react highly sensitive to matting agents with markedly reduced water and stain resistance. This includes very often dispersions with a higher minimum film formation temperature based on polymers with a higher glass transition temperature.

### Fields of application

- water-based mat coatings, especially acrylate-based emulsions for wood varnishes
- partial or full replacement of matting agent with much easier handling and improved water and alcohol resistance as well as stain resistance

**Minimum film thickness:**

> 20 µm, less in special cases

**Dosage:**

up to 20 % (w/w) based on total formulation, depending on intended gloss level, see also reverse page of this leaflet.



### 3. Benefits

#### In dry film:

- very good matting effect
- very high transparency without any color tint
- good long term stability of transparency
- good wood grain enhancement (“Anfeuerung”)
- good early blocking resistance
- excellent metal marking resistance (mar resistance)
- excellent early water resistance (anti-blushing)
- enhanced stain resistance (ink, alcohol)

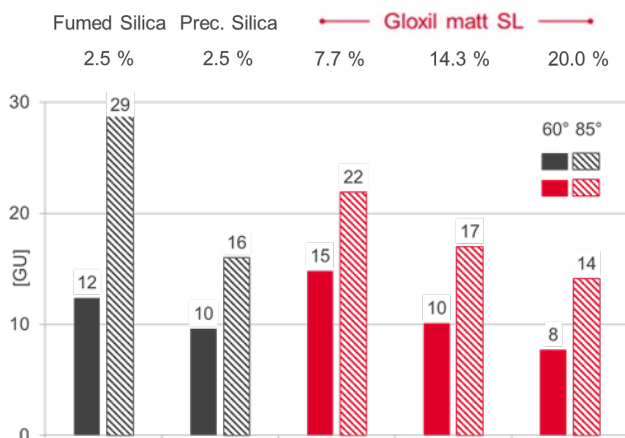
#### During processing and in the wet formulation:

- very easy handling, metering and incorporation; stir in is already sufficient, no dispersion process needed
- no dust formation
- no risk of surface-adhesion compared to powders
- time and effort reduction
- low to no foam formation
- low to no sedimentation tendency
- easy matting level adjustment via post-addition

### 4. Effects of GLOXIL matt SL in Multilayer Clear Coat based on Alberdingk AC 2514

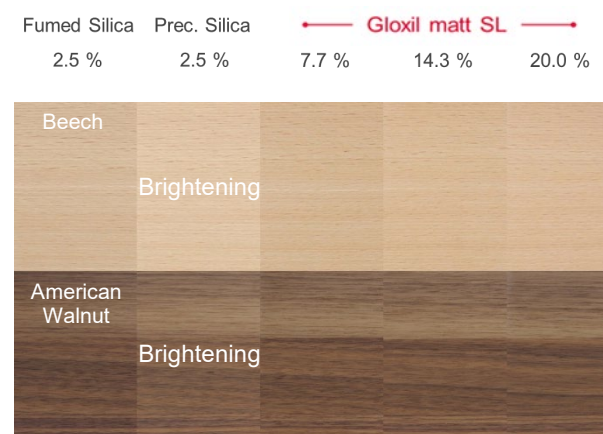
#### Matting, Gloss 60°/85° on wood

DFT 105 µm (3 x 35 µm)



#### Appearance

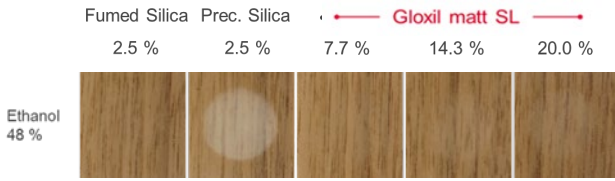
Drying 28 d





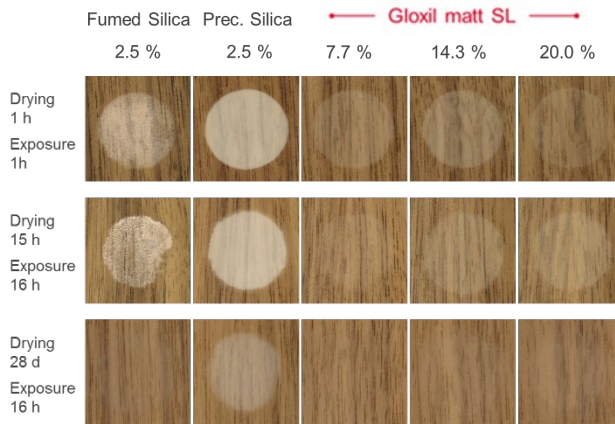
## Alcohol resistance

80 d after application, exposure period 16 h



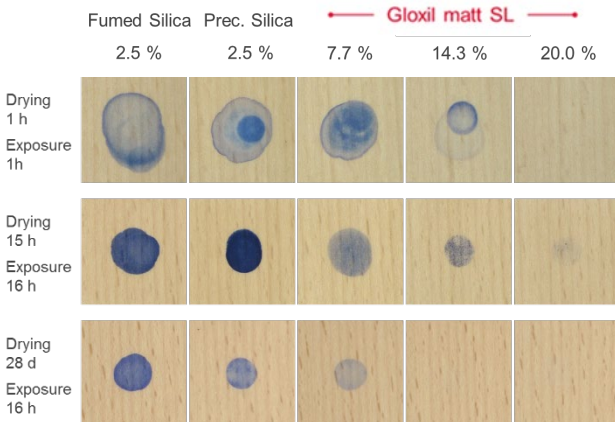
## Water resistance

early and 28 d after application  
acc. DIN 68861-1, 1A



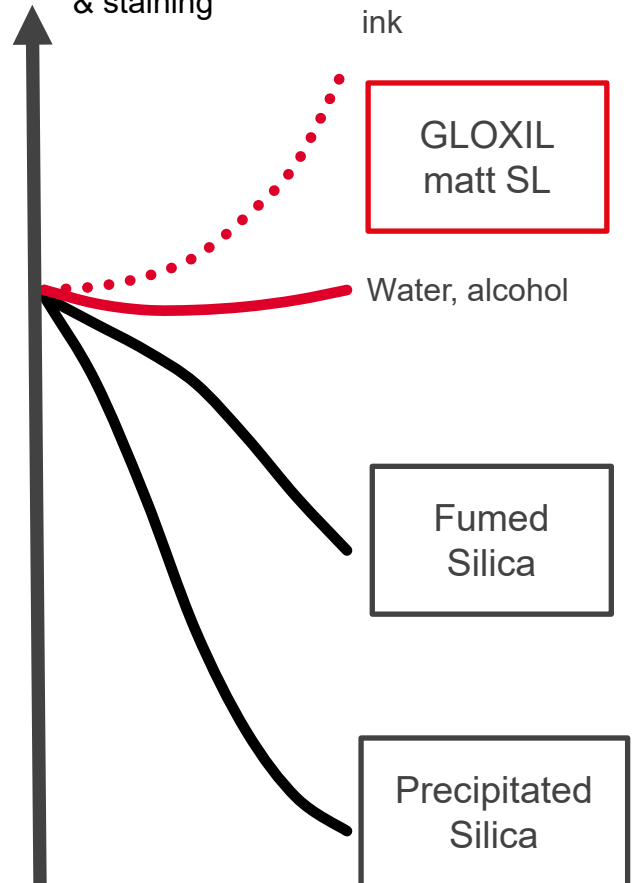
## Ink resistance

early and 28 d after application  
acc. DIN 68861-1, 1A



## Performance of GLOXIL matt SL

Resistance against  
blushing, spreading  
& staining



high gloss  $\xrightarrow{\text{increasing dosage of matting agent}}$  low gloss

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