



## **SILLITIN N 85 (PURISS)**

Field of application: Paint & Varnish

## 1. Description

SILLITIN N 85 and SILLITIN N 85 puriss is a natural combination of corpuscular silica and lamellar kaolinite. These two elements together form a loose structure which offers particular advantages in terms of application possibilities when used as a functional filler.

Characteristics			
Appearance		free-flowing powder	
Color CIELAB scale:	L* a* b*	93.5 1.0 9.0	
Residue > 40 µm		25 mg/kg	
Volatile matter at 105 °C	0.5 %		
Densitiy		2.6 g/cm <sup>3</sup>	
Particle size distribution	D <sub>50</sub> D <sub>97</sub>	3.5 μm 17.0 μm	
Surface area BET		11 m²/g	
Oil absorption		45 g/100 g	
Electrical conductivity	80 μS/cm		
Refractive index n	1.55		
Puriss grade: As a result of a sophisticat residue is reduced even for the following: In addition the good dispersions.	8 mg/kg		
Packaging			

Packaging				
Paper bags	á 25 kg			
EVA bags	≤ 20 kg			
Big Bags	750 - 1200 kg			
Bulk	≤ 25 t			

The puriss-grade is available in paper bags of 25 kilos only.

## Shelf life

Unlimited if stored properly under dry conditions.

## TECHNICAL DATA SHEET

# SILLITIN N 85 (PURISS) Field of application: Paint & Varnish

## 2. Applications

In paint and varnish applications SILLITIN N 85 and SILLITIN N 85 puriss can be used as a functional filler either on their own or combined with extenders or flatting agents.

Information on compliance with certain regulations/recommendations and other safety-related aspects: <a href="Product safety information">Product safety information</a>

#### Fields of application

- emulsion and silicate paints (exterior and interior emulsion paints)
- · industrial paints
- wood and foil coatings
- · primers and fillers
- sealing and embedding compounds

It stands out for its excellent dispersion properties and relatively low yield point with a high solids content, high abrasion resistance and very good flatting effect.

In unpigmented coatings it achieves good transparency with a low yellow tinge.

#### SILLITIN N 85 puriss also has advantages in the following instances:

- extremely high requirements on dispersion behavior (paint production without grinding)
- very low coating thickness

#### Formulation principle:

solvent-based, solvent-free, water-based

#### Hardening principle:

all conventional reaction types, also UV-curing

#### Minimum film thickness:

> 20 µm, less in special cases

#### Metering:

up to 55 % depending on intended application



## TECHNICAL DATA SHEET

## SILLITIN N 85 (PURISS)

Field of application: Paint & Varnish

## 3. Benefits

- · high filling ratio
- · outstanding dispersion behavior
- · good pigment dispersion (spacer effect)
- relatively low abrasiveness
- · low tendency to settle
- · good wet edge strength
- quick drying
- · weathering resistance
- breathability
- · scratch resistance
- high abrasion resistance
- good transparency
- good flatting effect
- · complies with the standards on basic foodstuffs of the BfR and FDA

#### Puriss also provides the following benefits compared with the base SILLITIN N 85:

- · extremely low sieving residues
- · excellent dispersion behavior

Comparison of properties					
	SILLITIN V	SILLITIN N	SILLITIN Z	SILLIKOLLOID P	
Viscosity	•	••	•••	••••	
Yield point	•	••	•••	••••	
Sedimentation	••••	•••	••	•	
Flatting	••••	•••	••	•	

• = low •••• = high



## **SILLITIN N 85 (PURISS)**





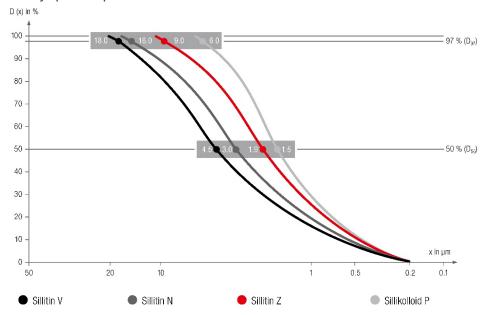
## 4. Particle size distribution

The measurement method for these particle size distributions is based on the Fraunhofer diffraction spectrum. The analyses were carried out with Mastersizer 3000, a laser apparatus of Malvern.

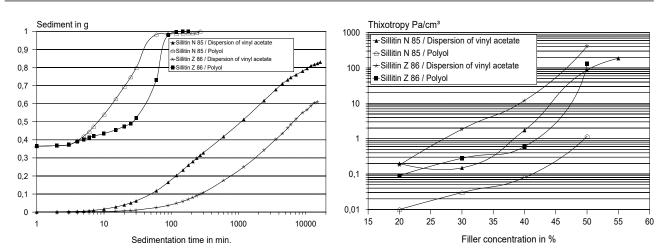
#### Important:

The data on particle size distribution is highly dependent upon the method used, test preparations and the measuring device itself. As a result the values given may not be directly comparable with those provided by another manufacturer.

If you have any queries please contact us direct.



## 5. Sedimentation and Rheology



Our applications engineering advice and the information contained in this memorandum are based on experience and are made to the best of our knowledge and belief, they must be regarded however as non-binding advice without guarantee. Working and employment conditions over which we have no control exclude any damage claim arising from the use of our data and recommendations. Furthermore we cannot assume any responsibility for patent infringements, which might result from the use of our information.

