



SILLITIN N 85 (PURISS)

Field of application: Elastomers

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 ³		
Particle size distribution	D ₅₀ D ₉₇	3.5 μm 17.0 μm		
Surface area BET		11 m²/g		
Oil absorption		45 g/100 g		
Puriss grade: As a result of a sophisticated manufacturing process the very low residue is reduced even further from the values given above to the following: $000000000000000000000000000000000000$		8 mg/kg		

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

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2. Applications

In elastomer applications SILLITIN N 85 and SILLITIN N 85 puriss can be used as a functional filler either on its own or in combination with other non-reinforcing or reinforcing fillers.

Information on compliance with certain regulations/recommendations and other safety-related aspects: Product safety information

Fields of application

In general **SILLITIN N 85** is suitable for any rubber products used for technical applications.

Its particular properties are low compression set and high rebound resilience.

Used in black profiles and hoses it achieves a good matting effect.

As well as black compounds it is equally suitable for colored compounds.

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

- products with extremely thin walls (membranes)
- if surface quality requirements are very high (roller coverings and offset blankets)
- if dispersion requirements are very high (compounds with a high oil content or automotive profiles with very high surface defect rate)

Methods of processing:

Any process commonly used in the rubber industry.

Elastomers:

BIIR, BR, CIIR, CR, HNBR, IIR, IR, NBR, NR, PNR, SBR; CM, CSM, EPM, EPDM, EVM.

Metering:

EPM, EPDM: 50 - 400 phr NBR: 50 - 250 phr NR: 50 - 250 phr SBR: 50 - 250 phr



TECHNICAL DATA SHEET

3. Benefits

- good, fast incorporation
- very good dispersion behavior
- · good rheological properties
- excellent surfaces
- · good extrusion properties
- good heat conductivity
- · no negative influence on curing rate
- · very low tensile and compression set
- high electric insulation resistance
- good aging properties
- high chemical resistance
- complies with the standards on basic foodstuffs of the BfR and FDA
- · matting effect

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

- extremely low sieving residue
- excellent dispersion behavior, even in critical compounds

Comparison of properties				
	SILLITIN V	SILLITIN N	SILLITIN Z	SILLIKOLLOID P
Viscosity	•	••	•••	••••
Tensile strength	•	••	•••	••••
Tear resistance	•	••	•••	••••
Compression set	•	••	•••	••••
Profile quality (Extrusion)	•	••	•••	•••
Matting effect (Extrusion)	••••	•••	••	•
Elasticity	••••	•••	••	•
Abrasion	••••	•••	••	•

• = low •••• = high



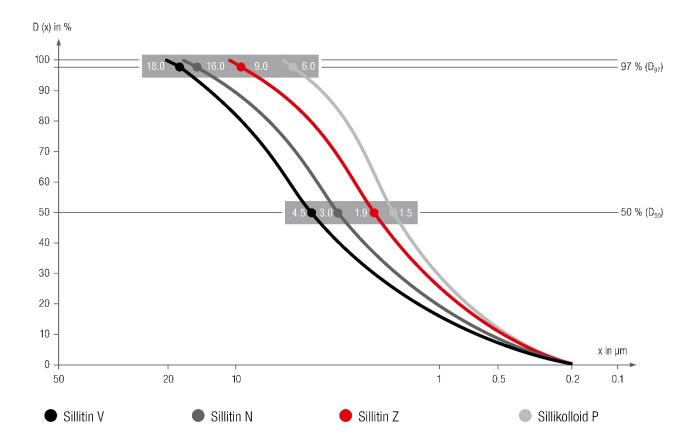
4. Particle size distribution

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.



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