

SILLITIN V 85

Field of application: Elastomers

1. Description

SILLITIN V 85 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*	93.3
	a*	1.0
	b*	9.2
Residue > 40 µm		25 mg/kg
Volatile matter at 105 °C		0.5 %
Density		2.6 g/cm ³
Particle size distribution	D ₅₀	4.5 µm
	D ₉₇	18.0 µm
Surface area BET		10 m ² /g
Oil absorption		45 g/100 g

Packaging

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

Shelf life

Unlimited if stored properly under dry conditions.



2. Application

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

Field of application

In general SILLITIN V 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 the highest matting effect of all SILLITIN types.

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

Methods of processing:

Any process commonly used in the rubber industry, particularly molded and calender products.

Elastomers:

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

Metering:

EPM, EPDM:	50 - 400 phr
NBR:	50 - 250 phr
NR:	50 - 250 phr
SBR:	50 - 250 phr
Q:	50 - 150 phr



3. Benefits

- good, fast incorporation
- very good dispersion behavior
- very 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

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



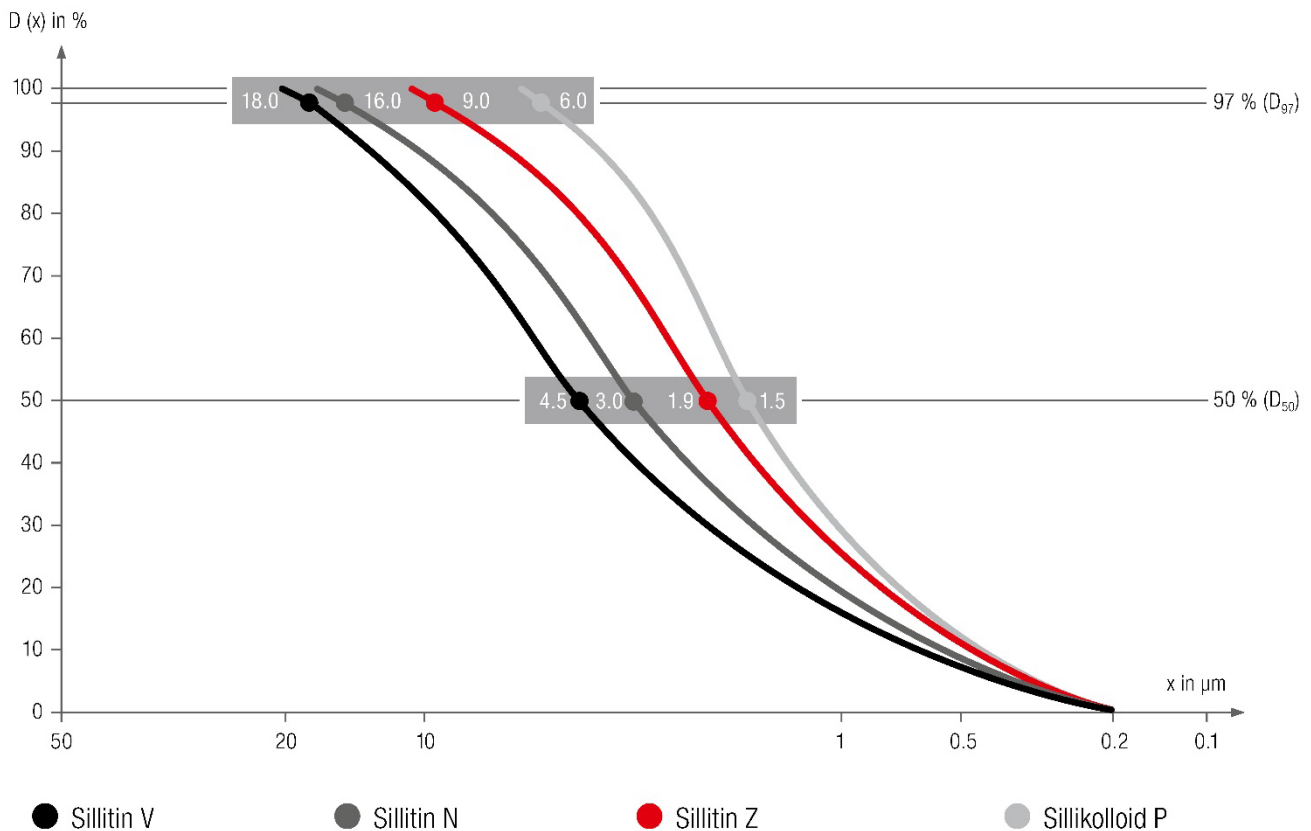
4. Particle size distribution

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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