

SILLITIN V 88

Field of application: Thermoplastics

1. Description

SILLITIN V 88 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*	95.1
	a*	0.3
	b*	4.0
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		8 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. Applications

In thermoplastic applications SILLITIN V 88 is used in films as a anti-blocking additive, primarily in the area of LDPE films or as a matting agent in TPU films.

Fields of application

SILLITIN V 88 achieves very good results in films of higher thickness, usually greater than 50 microns, being used as anti-blocking additive.

In contrast to synthetic silicas SILLITIN V 88 causes hardly any adsorption of slip additives due to its comparatively low surface area. Cost benefits are another positive aspect.

For thinner and very thin LDPE films Silfit Z 91 or the hydrophobic, alkyl silane treated Aktifit PF 111 are recommended. For TPU films the amino silane treated Aktifit AM is recommended.

Moreover, SILLITIN V 88 contains very low sieve residues compared to other natural mineral additives and can also be used for products in contact with food.

In addition SILLITIN V 88 is the suitable functional filler for green house and agricultural films. It performs in high IR-absorption and high light transmission in the visible wave length range with moderate haze. For even higher light transmission and lowest haze Silfit Z 91 and Sillitin Z 89 puriss are recommended.

Dosages:

- Anti-blocking in LDPE: depending on requirements, from 1000 ppm to 1
- Matting in TPU: depending on desired gloss, 5 to 20 %
- IR-absorber in green house and agricultural films: depending on requirements and film thickness 5 to 15 %

3. Benefits

- very low residues
- very good dispersion behavior
- good matting effect
- low coefficient of friction
- good transparency
- high light transmission
- high IR absorption
- no consumption of slip additives
- complies with the standards on articles in contact with foodstuffs of the BfR and FDA
- cost-effective



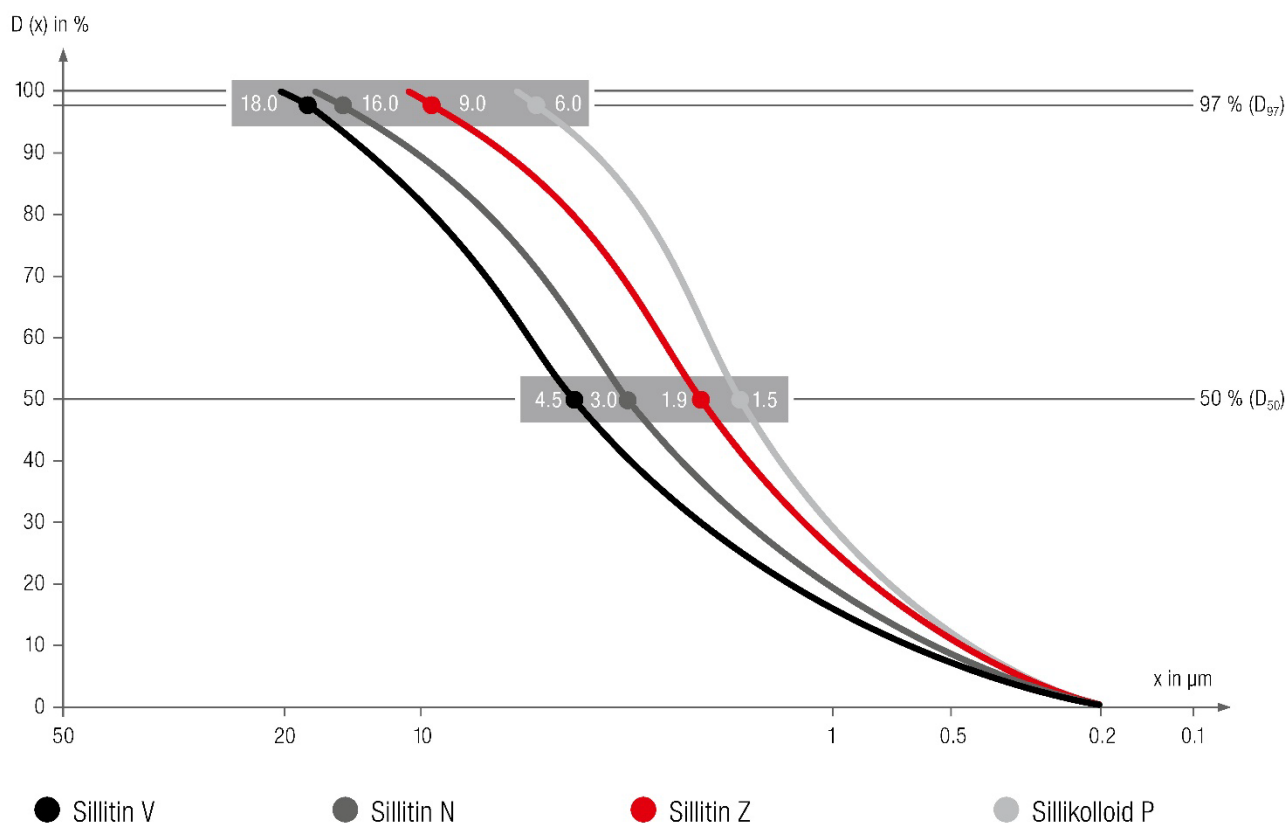
4. Particle size distribution

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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