

SILLITIN V 88

Field of application: Thermoplastics

1. Description

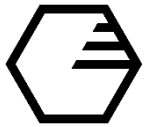
SILLITIN V 88 is a natural combination of corpuscular silica and lamellar kaolinite. These two elements together form a loose structure which offers particular advantages in terms of application possibilities when used as a functional filler.

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/cm³
Particle size distribution	D ₅₀	4.5 µm
	D ₉₇	18.0 µm
Surface area BET		8 m²/g
Oil absorption		45 g/100 g

Packaging	
Paper bags	à 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.

Information on compliance with certain regulations/recommendations and other safety-related aspects: [Product safety information](#)

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

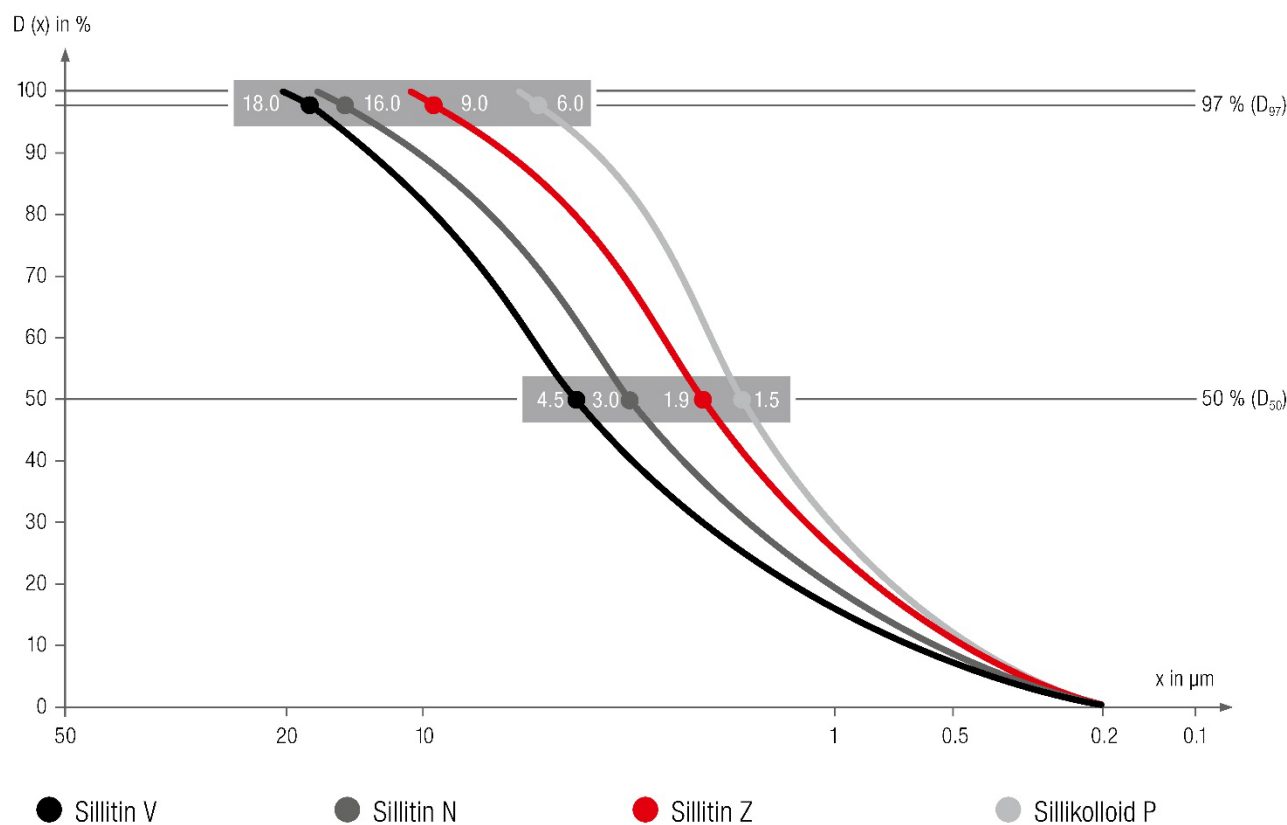


4. Particle size distribution

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.



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.