

SILLITIN Z 89 / SILLITIN Z 89 puriss

TECHNICAL DATA – Field of application: PAINT & VARNISH

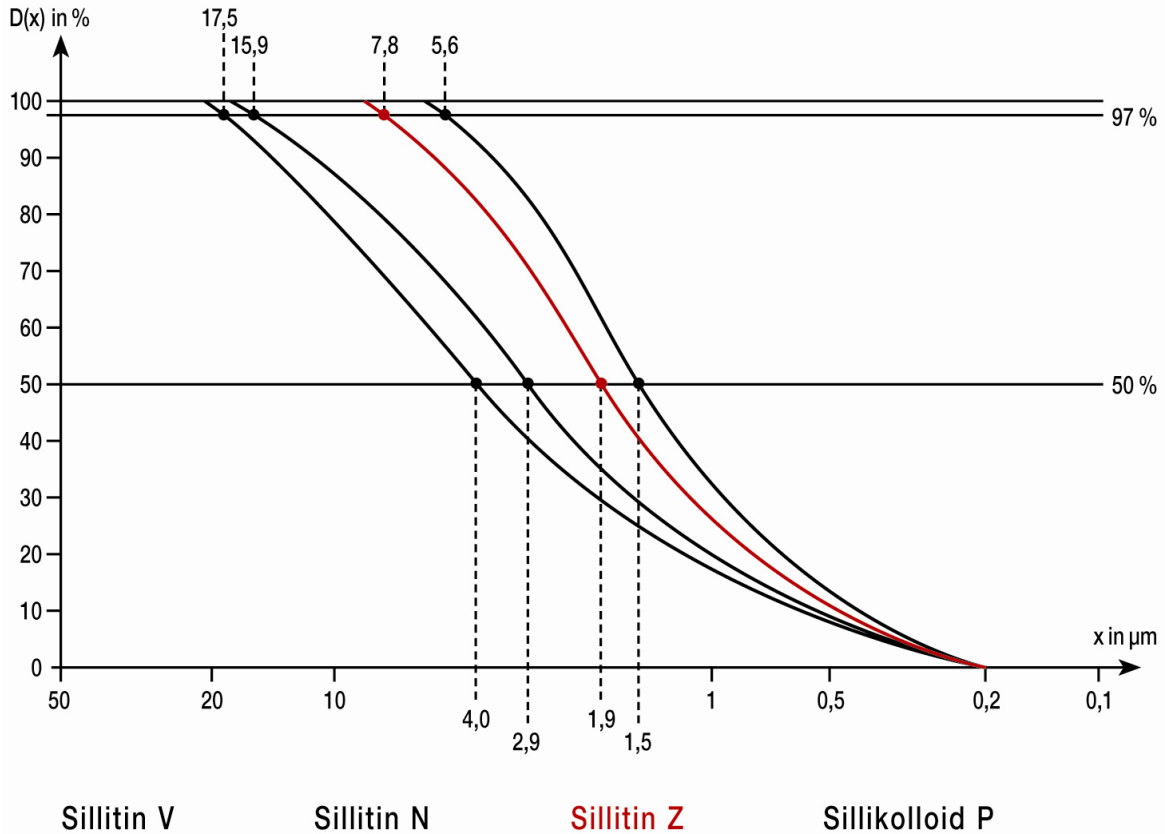
<p>1. Description</p> <p>SILLITIN Z 89 and SILLITIN Z 89 puriss is a natural combination of corpuscular, crypto-crystalline and amorphous silica and lamellar kaolinite. These two elements together form a loose structure which offers particular advantages in terms of application possibilities when used as a functional filler.</p> <p>Characteristics: Appearance: free-flowing powder Brightness Y DIN 53 163: 86 Brightness Z DIN 53 163: 86 Residue > 40 µm: 20 mg/kg Residue > 200 µm: 3 mg/kg Volatile matter at 105 °C: 0.5 % Electrical conductivity: 75 µS/cm Density: 2.6 g/cm³ Particle size distribution d₅₀: 2.0 µm d₉₇: 8.5 µm Surface area BET: 10 m²/g Oil absorption: 55 g/100 g Refractive index n: 1.55</p> <p>Puriss grade: As a result of a sophisticated manufacturing process the very low sieving residue is reduced even further from the values given above to the following: > 40 µm: 8 mg/kg > 200 µm: 1 mg/kg In addition the very good dispersion behavior is once more improved.</p> <p>Packaging: Paper bags:* à 25 kg PE bags: ≤ 20 kg EVA bags: ≤ 15 kg Big Bags: 550 - 900 kg Bulk: ≤ 24 t The puriss-grade* is available in paper bags of 25 kg only.</p> <p>Shelf life: Unlimited if properly stored under dry conditions.</p>	<p>2. Applications</p> <p>In paint and varnish applications SILLITIN Z 89 and SILLITIN Z 89 puriss can be used as functional fillers either on their own or combined with extenders or flattening agents.</p> <p>Fields of application:</p> <ul style="list-style-type: none"> emulsion and silicate paints (exterior and interior emulsion paints) industrial paints wood and foil coatings anti-corrosion coatings primers and fillers also for the automobile industry sealing and embedding compounds electrophoretic paints <p>It stands out for its excellent dispersion properties, moderate yield point and pseudoplasticity with a high solids content and high abrasion resistance. In unpigmented coatings it achieves good transparency with a minimal yellow tinge.</p> <p>SILLITIN Z 89 puriss also has advantages in the following instances:</p> <ul style="list-style-type: none"> extremely high requirements on dispersion behavior (paint production without grinding) very low coating thickness <p>Formulation principle: solvent-based, solvent-free, water-based.</p> <p>Hardening principle: all conventional reaction types, also UV-curing.</p> <p>Minimum film thickness: > 10 µm, less in special cases.</p> <p>Metering: up to 50 % depending on intended application.</p>	<p>3. Benefits</p> <ul style="list-style-type: none"> high filling ratio outstanding dispersion behavior good pigment dispersion (spacer effect) low abrasiveness very low tendency to settle soft sediment good wet edge strength quick drying weathering resistance breathability scratch resistance high abrasion resistance very good transparency slight flattening effect complies with the standards on basic foodstuffs of the BfR and FDA <p>Puriss also provides the following benefits compared with the base SILLITIN Z 89:</p> <ul style="list-style-type: none"> extremely low sieving residues excellent dispersion behavior <p>Properties:</p> <table border="1"> <thead> <tr> <th></th> <th>V</th> <th>N</th> <th>Z</th> <th>P</th> </tr> </thead> <tbody> <tr> <td>Viscosity</td> <td>*</td> <td>**</td> <td>***</td> <td>****</td> </tr> <tr> <td>Yield point</td> <td>*</td> <td>**</td> <td>***</td> <td>****</td> </tr> <tr> <td>Sedimentation</td> <td>****</td> <td>***</td> <td>**</td> <td>*</td> </tr> <tr> <td>Flattening</td> <td>****</td> <td>***</td> <td>**</td> <td>*</td> </tr> </tbody> </table> <p>* = low **** = high</p>		V	N	Z	P	Viscosity	*	**	***	****	Yield point	*	**	***	****	Sedimentation	****	***	**	*	Flattening	****	***	**	*
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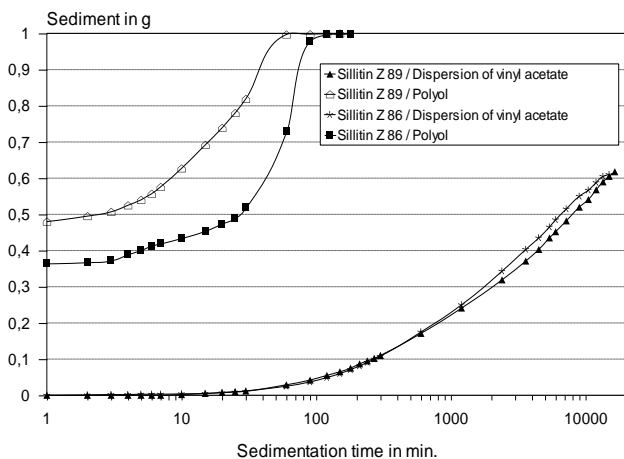
4. Particle size distribution

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

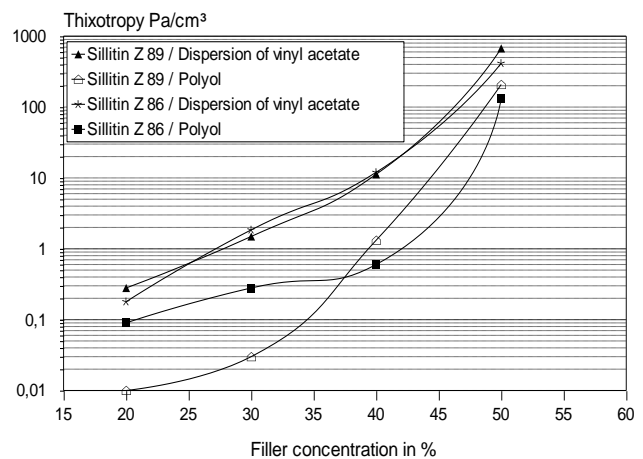
Important: The data on particle size distribution is highly dependent upon the method used, test preparations and the measuring device itself. As a result the values given may not be directly comparable with those provided by another manufacturer. If you have any queries please contact us direct.



5. Sedimentation



6. Rheology



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