

## AKTISIL VM 56

### TECHNICAL DATA - Field of application: PAINT & VARNISH

1. Description	2. Applications	3. Advantages
<p><b>AKTISIL VM 56</b> is an activated SILLITIN Z 86, produced by modifying the surface with Vinyl-triethoxy silane. The by-products split off during the treatment reaction are largely removed during the production process which firmly attaches the silane to the filler surface. This helps minimize undesirable side effects, as they are potentially encountered with in-situ mixing (direct addition of silane to the compound).</p> <p>During curing (hardening) of the paint formulation, the vinyl groups of <b>AKTISIL VM 56</b> react with the functional groups of the binder especially in the presence of radicals.</p> <p><b>Characteristics:</b> Appearance: free-flowing powder Brightness Y DIN 53 163: 81 Brightness Z DIN 53 163: 76 Volatile matter at 105 °C: 0.8 % Density: 2.6 g/cm<sup>3</sup> Particle size distribution d<sub>50</sub>: 2.2 µm d<sub>97</sub>: 10.0 µm Oil absorption: 45 g/100 g Refractive index n: 1.55</p> <p><b>Packaging:</b> Paper bags: à 25 kg PE bags: ≤ 25 kg EVA bags: ≤ 20 kg Big Bags: 550 - 900 kg Bulk: ≤ 24 t</p> <p><b>Shelf life:</b> At least two years if properly stored under dry conditions.</p>	<p>In paint and varnish applications <b>AKTISIL VM 56</b> can be used as a functional filler either on its own or combined with extenders or flattening agents. The best effect is achieved in binder systems which polymerize or cure due to a radically initiated reaction. In particular these include:</p> <ul style="list-style-type: none"><li>• UV or electron-beam cured paints</li><li>• unsaturated polyester resins</li><li>• vinyl ester and acrylic resins</li><li>• other radically cured systems</li></ul> <p>It is also suitable for:</p> <ul style="list-style-type: none"><li>• melamine and UF resins</li></ul> <p>It can be used whenever optimum wettability, low yield point (including a high solids content) and very low sedimentation are just as important as excellent mechanical properties and high chemical resistance.</p> <p><b>Fields of application:</b></p> <ul style="list-style-type: none"><li>• UV-cured wood and foil coatings</li><li>• reactive adhesives</li><li>• sealing and embedding compounds</li><li>• stoving paints/enamels</li><li>• special emulsion paints</li><li>• anti-corrosive coatings</li></ul> <p><b>Minimum film thickness:</b> &gt; 10 µm, less in special cases</p> <p><b>Metering:</b> up to 50 % depending on intended application.</p>	<p>The excellent properties of the base material SILLITIN Z 86 are retained:</p> <ul style="list-style-type: none"><li>• high filling ratio</li><li>• outstanding dispersion behavior</li><li>• good pigment dispersion (spacer effect)</li><li>• low abrasiveness</li><li>• very low tendency to settle</li><li>• soft sediment</li><li>• good wet edge strength</li><li>• quick drying</li><li>• weathering resistance</li><li>• breathability</li><li>• scratch resistance</li><li>• high abrasion resistance</li><li>• good transparency</li><li>• slight flattening effect</li></ul> <p><b>AKTISIL VM 56</b> also provides the following benefits compared with the base SILLITIN Z 86:</p> <ul style="list-style-type: none"><li>• improved wettability even using binders with low polarity</li><li>• reduction of the yield point with high solids content</li><li>• increased tensile and bending strength as well as impact strength</li><li>• improved abrasion and scratch resistance</li><li>• increased resistance to chemicals and moisture</li><li>• improved swelling characteristics</li><li>• minimal water absorption with high water vapor permeability</li></ul>

VM-5/5.08/Art.-No. 06852980

