

WACKER SILICATE MKS

Ethyl Silicates

Characteristics

Wacker Silicate MKS is an ethyl silicate binder suitable for the formulation of one-pack zinc-rich paints.

Special characteristics

Wacker Silicate MKS is a binder with outstanding anti-settling properties. Paints formulated with it are easy to stir up even if they have been stored for a long time. Once a coating has been applied, it will cure under the influence of atmospheric moisture and can be easily overpainted with any standard paint.

Application

Zinc-rich paints based on Wacker Silicate MKS are used primarily as primers or on their own as paint. They effectively protect steel from corrosion:

- in aggressive industrial and coastal atmospheres
- at high temperatures (up to 420 °C)
- in the presence of chemicals

Processing

To prepare a ready-to-use zinc-rich paint, add the anti-settling agents and zinc dust in that order to Wacker Silicate MKS, dispersing them with a high-speed mixer. Solvents can be used to adjust the desired SiO₂ content or the desired viscosity of the formulation. Add the solvents while the stirrer is at low speed. The temperature of the premix should not be higher than 40 °C.

It is also important that the added components do not introduce uncontrolled amounts of water into the system as this would adversely affect the processing time / shelf life of the formulation.

Temperature and moisture have a major influence on the curing process.

Once the zinc-rich paint has been applied, it must be fully exposed to atmospheric moisture (approx.

50 % r. h.). The binder will then hydrolyze and cure very rapidly to produce a hard coating.

Storage

Wacker Silicate MKS has a shelf life of at least 12 months when stored at 30 °C maximum in the tightly closed original container. The 'Best use before end' date of each batch appears on the product label.

Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

Safety information

Detailed safety information is contained in each Material Safety Data Sheet, which can be obtained from our sales offices.

Product data

Appearance	slightly cloudy, thixotropic liquid	
SiO ₂ content, approx.	[%]	20
Density (20 °C), approx.	[g/cm ³]	0.94
Viscosity (20 °C), approx.	[mPa s]	60
Flash point	[°C]	< 21
Dilution	miscible with low-boiling aliphatic and aromatic solvents	

* These figures are only intended as a guide and should not be used in preparing specifications.

The data presented in this leaflet are in accordance with the present state of our knowledge, but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the products for a particular purpose.

The management system has been certified according to DIN EN ISO 9001 and DIN EN ISO 14001



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For technical, quality, or product safety questions, please contact:

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