

PRODUCT DATA SHEET

SikaCor® VEC

CONDUCTIVE VINYLESTER RESIN MORTAR

DESCRIPTION

SikaCor® VEC is a cold-curing 2-pack synthetic resin mortar made of SikaCor® VE Lösung (solution), SikaCor® VE Härter (hardener) and SikaCor® VEC Mehl (powder), an inert carbon filler.

USES

SikaCor® VEC may only be used by experienced professionals.

SikaCor® VEC is suitable for laying and jointing of bricks, tiles and special fabricated pieces made of ceramic or carbon for the production of chemical, thermal and mechanic resistant coatings and protective linings.

Due to its extraordinary resistance against oxidising agents, SikaCor® VEC is used in the plants for stainless steel pickling, galvanising and for the production and processing of nitric acids.

CHARACTERISTICS / ADVANTAGES

- Wide ranging chemical resistance to acids, leaches, solvents and notably to oxidising substances (e.g. chlorine bleach)
- The cured mortar conducts electricity and thus can be used for the production of electrically conductive floors according to AGI-S30
- Very fast curing

PRODUCT INFORMATION

Composition	SikaCor® VE Lösung (solution)	Vinyl ester resin
	SikaCor® VE Härter (hardener)	Org. peroxide
	SikaCor® VEC Mehl (powder)	Carbon powder
Packaging	SikaCor® VE Lösung (solution)	25 kg net.
	SikaCor® VE Härter (hardener)	1 kg net.
	SikaCor® VEC Mehl (powder)	25 kg net.
Appearance / Colour	Black	
Shelf life	SikaCor® VE Lösung (solution)	3 months
	SikaCor® VE Härter (hardener)	6 months
	SikaCor® VEC Mehl (powder)	24 months
Storage conditions	In originally sealed containers in a cool and dry environment (at max. + 20°C).	

Density	SikaCor® VE Lösung (solution)	~1.1 g/cm ³
	SikaCor® VE Härter (hardener)	~1.1 g/cm ³
	SikaCor® VEC Mehl (powder)	~0.9 g/cm ³ (bulk density)

TECHNICAL INFORMATION

Temperature Resistance	Dry heat up to approx. + 120°C Damp heat depending on chemical exposure upon request
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SYSTEMS

Systems	Hardened SikaCor® VEC Mortar	
	Density	~1.4 g/cm ³
	Shore hardness D	> 60
	Compressive strength EN ISO 604	~140 N/mm ²
	Flexural strength EN ISO 178	~25 N/mm ²
	Tensile strength EN ISO 527	~10 N/mm ²
	Elastic modulus (compression)	~0.6 x 10 ⁴ N/mm ²
	Heat conductivity	~1.0 W/(m x K)
	Linear expansion coefficient	~40 x 10 ⁻⁶ K ⁻¹
	Electrical resistance	≤ 1 x 10 ⁸

APPLICATION INFORMATION

Consumption	Coating system and consumption	
	Priming coat: 1.000 kg SikaCor® VE Lösung (solution) (100 parts) 0.015 kg SikaCor® VE Härter (hardener) (1.5 parts) 1.015 kg = 1 l final mixture consumption: approx. 0,3 kg/m ²	
	Embedding and jointing mortar: 0.450 kg SikaCor® VE Lösung (solution) (100 parts) 0.007 kg SikaCor® VE Härter (hardener) (1.5 parts) 0.810 kg SikaCor® VEC Mehl (powder) (180 parts) 1.267 kg = 1 l final mixture	
Ambient Air Temperature	Min. + 10°C	
Relative Air Humidity	Max. 80% (temperature ≥ 3°C above the dew point) Provide good and sufficient ventilation during application! Water, even in minimal quantities, may damage the accelerating system and avoid the hardening process of the mortar. Please keep tools and mixers absolutely dry.	
Surface Temperature	Min. + 10°C	
Pot Life	Priming coat	~30 - 45 min at +20° C
	Embedding and jointing mortar	~50 min at +20° C
Drying time	Walkable	After ~4 h (+20°C surface temperature)
	Hard-dry	Full mechanically and chemically after 2 days (+ 20°C surface temperature)

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

Concrete:

Prepare surface areas by abrasive blast-cleaning. The surface must be dry, firm, fine gripping, free from loose and friable particles, mortar laitance, dust and other contaminations. Residual moisture content not above 4%. Surface tensile strength not be below 1.5 N/mm². Polluted or chemically contaminated surfaces require additional adequate cleaning methods. If panels have to be laid in alkaline mortar or silicate mortar with open joints, make sure that the mortar is hardened and dried before applying SikaCor® VEC. To acidify the joints is not necessary. The edges of the panels have to be free from mortar and the joints must be cleaned. SikaCor® VEC can be applied directly on sealed layers, such as polyisobutylene foils. In this case, surfaces have to be impregnated (see primers). The priming coat has to be blinded as long it is fresh. After hardening of the priming coat you can use SikaCor® VEC-Mortar.

SURFACE PREPARATION

Steel:

Blast-cleaning to Sa 2 ½ according to ISO 12944-4. Free from dirt, oil and grease.

MIXING

Fill SikaCor® VE Lösung (solution) in a container and add SikaCor® VE Härter (hardener) at the specified mixing ratio. Stir thoroughly until a homogeneous compound is obtained. Then fill into a clean container to stir up again. Add powder according application and required mixing ratio. Mixing time should be at least 3 minutes.

APPLICATION

Priming coat	By brush or roller
Embedding and jointing mortar	By levelling trowel

CLEANING OF EQUIPMENT

Ethylacetate

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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