

# KÖSTER

## EM-VS

Technical guideline / Article number **6.01**  
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### 2C epoxy-resin coating for light to medium stress applications

#### Features

KÖSTER EM-VS is an universally applicable water based, scratch-resistant epoxy resin sealant with very high covering power. It bonds very well to all mineral substrates.

It is resistant to medium mechanical stresses and to short term chemical stresses caused by contacts with diluted acids, alkalis and salt-solutions.

The material is not suited for permanent exposure to water.

#### Technical data

Mixing ratio (by weight A : B)	4 : 1
Density (23°C)	approx. 1.35 g / cm <sup>3</sup>
Viscosity (23 °C)	thixotrope
Pot life (12 °C / 23 °C / 30 °C)	approx. 90 / 45 / 30 min
Application of next layer	12 °C: min. 24 to 48 h 23 °C: min. 12 to 24 h 30 °C: min. 12 to 24 h
Cured – walkable (12 °C / 23 °C / 30 °C)	approx. 48 / 24 / 16 h
Full cure (12 °C / 23 °C / 30 °C)	approx. 10 / 7 / 5 d
Colour (standard)	similar to RAL 7032 (pebble grey)
Substrate temperature	min. 12 °C, max. 30 °C
Max. relative humidity	max. 75 % (12 °C) max. 80 % (23 °C)
Temperature difference to dew point	min. 3 °C
Material temperature	15 – 25 °C

#### Field of application

KÖSTER EM-VS can be used to seal and paint floor- and wall-surfaces made of concrete, cementitious screeds, plasters in indoor areas (e.g. shops, garages etc.).

#### Substrate preparation

The substrate to be sealed must be sound and solid, free of dust, oil and grease as well as other contaminants that inhibit bonding. Unstable and / or contaminated substrates have to be removed down to a clean, sound and solid layer by scarifying and/or sand- or shot-blasting. Rough substrates (e. g. due to scarifying grooves) are levelled using KÖSTER LF-BM / silica sand (1 : 4).

KÖSTER EM-VS can be applied as the next layer after approx. 12 hours.

The minimum adhesive tensile strength of the substrate must be 1.5 N / mm<sup>2</sup> and the residual moisture content of concrete must not exceed 4 % by weight.

#### Mixing

The two components, which preferably should be temperature conditioned to approx. 15 °C, are mixed intensively using a mechanical stirring device (under 400 rpm) until a homogeneous consistency is reached. It is necessary to re-pot the material and to mix it again. Mixing time is approx. 3 min each time.

In order to adjust the processing consistency, 5 – 15 % of water is added to the material and mixed in thoroughly.

#### Application

KÖSTER EM-VS is spread evenly on the substrate immediately after mixing using a rubber wiper and then thoroughly rolled using a short napped furred roller. Make sure the material does not build puddles, e. g. by flowing into / collecting in surface depressions. Overlapping of coats should be kept to a minimum. In case of interruptions to the coating work, the coated area should be limited by masking the edges with tape and removing the tape after a gelling time of approx. 1 hour. This way, a clean seam is achieved. If a surface roughness is required e. g. for improved anti-slip properties, the addition of approx. 30 % of silica sand or a light sanding with silica sand (e. g. grading curve 0.1 – 0.4 mm) is recommended. This raises the material consumption.

#### Consumption

Approx. 200 to 300 g / m<sup>2</sup> per work step (two coats are recommended)

#### Cleaning of tools

Clean tools immediately after use with water. Already gelled material is removed with KÖSTER KB-Pox® Cleaner.

### **Packaging**

8 kg combi-package (6.4 kg of A-component and 1.6 kg of B-component)

### **Storage**

Store the material cool but frost-free. In originally sealed packages at temperatures between 15 and 25 °C, the material can be stored for 1 year.

### **Safety**

Avoid inhaling of the fumes and skin contact. During processing and application of the material, wear protective clothing, gloves and goggles. Make sure the room is ventilated well. In case of skin contact, wash off the material immediately with a lot of water and soap. In case of eye contact, flush eyes immediately and thoroughly with water (eye wash bottle from pharmacy) and consult a doctor. During processing and application of the material, do not eat, do not smoke, do not handle open flames. Generally, the warnings and safety recommendations on the packages and on the material safety data sheet and the relevant regulations of the professional organisations have to be observed and obeyed.

### **Technical guidelines cited**

KÖSTER LF-BM	Art. No.	6.06
KÖSTER KB-Pox <sup>®</sup> Cleaner	Art. No.	9.08

The information contained in this technical data sheet is based on the results of our research and on our practical experience in the field. All given test data are average values which have been obtained under defined conditions. The proper and thereby effective and successful application of our products is not subject to our control. The installer is responsible for the correct application under consideration of the specific conditions of the construction site and for the final results of the construction process. This may require adjustments to the recommendations given here for standard cases. Specifications made by our employees or representatives which exceed the specifications contained in this technical guideline require written confirmation. The valid standards for testing and installation, technical guidelines, and acknowledged rules of technology have to be adhered to at all times. The warranty can and is therefore only applied to the quality of our products within the scope of our terms and conditions, not however, for their effective and successful application. This guideline has been technically revised; all previous versions are invalid.

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