KÖSTER EM-VS

Technical Data Sheet CT 210 008

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2 component epoxy-resin coating for light to medium stress applications

CE	KÖSTER BAUCHEMIE AG Dieselstraße 1-10, 26607 Aurich **13** **CT 210** **EN 13813:2002** **KÖSTER EM-VS** **Synthetic resin for internal uses**
Reaction to fire	B2
Release of corrosive substances	SR
Water permeability	NPD
Wear resistance	≤ AR 0.5
Bond strength	≥ B 2.0
Impact resistance	≥ IR 4
Sound insulation	NPD
Sound absorption	NPD
Thermal resistance	NPD
Chemical resistance	NPD
Dangerous substances	NPD

Features

KÖSTER EM-VS is a 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 contact 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 / cm³
Viscosity (+ 23 °C)	thixotropic
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
Foot trafficable (+ 12 °C /+ 23 °C /+ 30 °C)	approx. 48 / 24 / 16 h
Full cure (+ 12 °C /+23 °C /+ 30 °C)	approx. 10 / 7 / 5 d
Color (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 °C – + 25 °C

Fields of Application

KÖSTER EM-VS can be used to seal and paint floor and wall surfaces made of concrete, cementitious screeds, and plasters in indoor areas such as shops, garages, etc. Exterior use is only allowed in conjunction with the KÖSTER BTG System. In the BTG System a maximum consumption of 200 – 300 g / m² is applied to the substrate and immediately broadcast to rejection with KÖSTER Color Chips (consumption approximately 300 g / m²). This cured layer is subsequently coated with KÖSTER TS transparent (consumption 0.15 – 0.2 kg / m²). For further details please see the technical system specifications for the KÖSTER BTG System.

Substrate

The substrate to be sealed must be sound and solid, free of dust, oil and grease as well as other bond inhibiting contaminants. Weak and/or contaminated substrates have to be removed down to a clean, sound and solid layer by scarifying, sandblasting or shot blasting. Rough substrates (e. g. due to scarifying grooves) are levelled using KÖSTER LF-BM mixed with silica sand (1 : 4). KÖSTER EM-VS can then be applied after approx. 12 hours.

The minimum adhesive tensile strength of the substrate must be 1.5 N / mm² and the residual moisture content of concrete must not exceed 4 % by weight. Where moisture from the substrate or a high pH is expected, KÖSTER VAP 2000 should be installed according to the Technical Datasheet.

Application

Mixing

The components should have a temperature of between + 15 °C and + 25 °C before mixing. They are mixed intensively using a mechanical stirring device (under 400 rpm) until a homogeneous consistency is reached. To avoid mixing failures re-pot the material and mix again. Total mixing time is 2 minutes. In order to adjust the processing consistency, 0.4 – 1.2 l of water can be added to the material and mixed in thoroughly. When processing multiple units of KÖSTER EM-VS, be sure to use exact amounts of water. Differences in water amounts will affect the coloration of the material.

Spreading

Immediately after mixing the KÖSTER EM-VS is spread evenly onto the substrate using a rubber squeegee and then thoroughly rolled using a short napped roller. Be sure that the material does not puddle, for example by flowing into or collecting in surface depressions.

Overlapping of coats should be kept to a minimum. Where scheduling or details cause an interruption to the coating work, the coated area should be masked with tape and the tape removed after a gelling time of approx. 1 hour. In this manner a clean seam is achieved.

If a rough or anti-slip surface is required, the addition of approx. 30 % kiln dried silica sand or a light sanding with kiln dried silica sand, for example with a grading fraction of 0.1 – 0.4 mm, is recommended. This

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will raise the material consumption.

Consumption
As interior coating: approx. 0.2 - 0.3 kg / m² per work step. Two coats are recommended. In the KÖSTER BTG System: 200 to 300 g / m² in one work step.

Cleaning
Clean tools immediately after use with KÖSTER Universal Cleaner. Hardened material is removed mechanically.

Packaging

CT 210 008	8 kg combipackage

Storage
Store the material cool but frost free. In originally sealed packages at temperatures between + 15 °C and + 25 °C, the material can be stored for a minimum of 12 months.

Safety
Avoid inhaling the fumes and skin contact. Wear protective clothing, gloves and goggles during processing and application of the material. Make sure the room is well ventilated. In case of skin contact, wash off the material immediately with lots of soap and water. In case of eye contact, flush eyes immediately and thoroughly with water or preferably an emergency eye wash bottle. Consult a physician. During processing and application of the material, do not eat, smoke, or handle open flames. The warnings and safety recommendations on the packaging and on the Material Safety Data Sheet and the regulations of relevant professional organisations must be observed and obeyed.

Other
Liquid polymers react to temperature fluctuations by changing their viscosity and/or curing behavior. Application should only be carried out during falling or constant temperatures. Low temperatures will slow the reaction; high temperatures and mixing large volumes will increase the reaction rate. Protect the coating form moisture of all kinds during application and curing.

Related products

KÖSTER LF-BM	Prod. code CT 160
KÖSTER VAP I 2000	Prod. code CT 230
KÖSTER TS transparent	Prod. code CT 320
KÖSTER Color-Chips	Prod. code CT 429
KÖSTER Universal Cleaner	Prod. code X 910 010

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