Konusit KK 10

Mineral-based polymer silicate for acid protection on vertical surfaces and overhead areas

Product properties

- Two-component, mineral-based coating, hand- and spray application
- Very high chemical resistance against numerous acids and solvents in the range of pH 0 to pH 8
- Very good adhesion on mineral-based substrates (concrete, brickwork)
- High resistance against mechanical impact, abrasion and high temperatures

Areas of application

- Surface protection of concrete and reinforced concrete components in wastewater industry - especially where exposed to chemical impact due to biogenic sulphuric acid
- Surface protection of concrete and masonry in waste-, chemical and energy industry - especially where exposed to acids combined with thermal and/or mechanical impact
- Weather-exposed, horizontal and slightly sloped surfaces must not be coated with Konusit KK 10

Application

Substrate Preparation
See leaflet “General Application Advice for Coarse Mortars / Concrete Replacement Systems“. Existing damages and alkali-impellent concrete as well as old concrete substrates must be repaired with Nafufill GTS-HS or Nafufill KM 250 HS. Steel substrates must be cleaned to SA 2 $^{1}/_{2}$.

Bond Coat
Konusit HB is used as bond coat, application according to technical data sheet „Konusit HB”.

Mixing
Konusit KK 10 is mixed with the liquid component Konusit KK 10-F until homogeneous and lump-free, using forced action mixers. Mixing takes at least 3-5 minutes. Addition of water, aggregates or cement is not permitted. See technical data table on page 2 for mixing ratio.

Application
Konusit KK 10 is applied by hand or preferably by wet spraying technique. Konusit KK 10 can be applied in one or several layers.

Spray application is carried out by means of a suitable worm pump with adequate equipment and oil- and water-free compressed air with 7-9 bar and ≥ 7 m^3/minute. The used compressors must be equipped with a separate oil- and water separator (≤ 0.01 ppm). The hoses are previously smeared with Konusit HB. In the 1st work step a 2-3 mm thick layer is sprayed onto the substrate and afterwards spread thoroughly as base filler using suitable tools. Immediately after application of the base filler the coating is to be applied fresh-in-fresh in serval layers respecting the indicated layers thickness. Immediately after spraying the surface can be smoothed by hand. In case of interruptions of work curing agents etc. have to be removed from the surface. The surface must be smoothened before the material starts curing. Hand application only for small areas.

Curing
Within the first 7 days after application the surface must be protected against water. Konusit KK 10 must be protected from drying out too rapidly, e. g. with Konusit NB or PE-foils. Condensation water or curing with water is not permitted.

Safety Advice
The safety advice for cement bound materials and substances must be observed. Protective clothes must be worn during application. The safety advice given on the packs must be observed.

General Information
The “General Application Advice” is available on request and must be observed. Any application of Konusit KK 10 must be approved beforehand by MC-Protection Technologie division.

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Technical Data for Konusit KK 10

Characteristic	Unit	Value	Comments
Largest grain size	mm	1	
Fresh mortar raw density	kg/dm³	approx. 2.2	at 23 °C and 50 % relative humidity
Mixing ratio	p.b.w.	100.0 9 - 12	Konusit KK 10 (25 kg) Konusit KK 10-F (2.5-3.0 kg/1.7-2.1 l)
Dynamic E-Modulus	N/mm²	approx. 37,000	after 28 days
Flexural tensile strength	N/mm²	 approx. 4 approx. 7 approx. 12	at 23 °C and 50 % relative humidity after 24 h after 7 d after 28 d
Compressive strength	N/mm²	 approx. 15 approx. 35 approx. 55	at 23 °C and 50 % relative humidity after 24 h after 7 d after 28 d
Application conditions	°C % K	≥ 10 - ≤ 30 ≤ 85 3	air and substrate temperature relative humidity above dew point
Application time	minutes	approx. 30 - 60	depending on temperature
Layer thickness	mm	8 -12	a minimum layer thickness of 8 mm above grain tips must be observed
Coverage	kg/mm/m²	approx. 1.96 approx. 0.24	Konusit KK 10 (100 p.b.w.) Konusit KK 10-F (12 p.b.w.)

Product Characteristics for Konusit KK 10

Colour	cement-grey
Delivery	Konusit KK 10: 25 kg bag Konusit KK 10-F: 30 kg canister
Storage	Can be stored in original sealed packages at temperatures between + 8 °C and + 20 °C in dry conditions for at least 12 months. Protect from frost! The same requirements are valid for transport.
Disposal	Packs must be emptied completely.

High temperatures shorten while low temperatures extend all indicated periods.
Please take notice of the safety information and advice given on the packaging labels and safety information leaflets.

Edition 12/10. Some technical changes have been made to this print medium. Older editions are invalid and may not be used anymore. If a technically revised new edition is issued, this edition becomes invalid.

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