TECHNICAL DATA SHEET

KEIM CONCRETAL®-MKH

1. PRODUCT DESCPRIPTION

Mineral corrosion protection and bonding bridge for the KEIM Concretal concrete repair system according to ZTV-ING TL/ TP BE PCC I - II, and according to DAfStb guideline as well as EN 1504-7.

2. FIELD OF APPLICATION

Application as corrosion protection:
Corrosion protection on derusted reinforcing steels which, after blasting, have the purity grade SA 2 1/2 of DIN EN 12944-4.

Application as bonding bridge:
For non-positive bonds between cement-based substrates and KEIM Concretal-Mörtel-R in concrete repair in civil engineering and bridge construction according to ZTV-ING for application cases PCC I and II, as well as in building construction according to DAfStb guideline.

3. PRODUCT PROPERTIES

- one-component
- adhesion-promoting
- corrosion protection
- protection against chloride contamination
- synthetic-modified

MATERIAL CHARACTERISTICS:

– Fresh mortar bulk density:	approx. 2,10 kg/dm³
– Mixing time:	5 min.
– Maturing time:	none

COLOUR SHADES:
grey

4. APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION:

Reinforcing steel:
The reinforcing steels must be prepared in accordance with DIN EN ISO 12944-4 to standard purity grade SA 2 1/2. They must be free of flash rust and other separating and corrosion-promoting substances. Quartz-free granulate blasting is a suitable cleaning method.

Concrete substrate:
The substrate must be clean, sound, open-pored and absorbent. The minimum quality of concrete substrates must correspond

to C20/25. Roughen dense, smooth substrates.
Remove dirt, cement slurry and non-bearing layers by blasting. Surfaces treated with water-repellent sealants or evaporation protection are not suitable (for explanations see ZTV-ING Part 3 Section 4 Tab. 3.4.2, Preparation of the concrete substrate). The surfaces are to be pretreated accordingly with a suitable process such as sandblasting or high-pressure water jetting.

APPLICATION CONDITIONS:
Ambient and substrate temperature during application and drying from ≥ 5 °C to ≤ 30 °C. Do not apply in direct sunlight or on sun-heated substrates. Protect surfaces from direct sun, wind and rain during and after application.

CONSUMPTION:
approx. 120 per linear metre as corrosion protection for a reinforcing steel with ∅ 16 mm
approx. 1050 g/m² as adhesion bridge
These material consumption values are guide values for smooth substrates. Exact consumption values must be determined by means of test areas.

APPLICATION:
As corrosion protection:
KEIM Concretal-MKH is applied to the prepared reinforcing steels with suitable brushes in two or three working steps. In case of application PCC two coats are required, in case of application SPCC three coats. Each coat must be applied all around and fully covering. Care must be taken to ensure that tying wires, edges, etc. are coated carefully in order to guarantee the required application quantity here as well.

Waiting time at 20°C:
1. Coat immediately after rust removal
2nd coat at the earliest after approx. 3 hrs.
Application of the bonding bridge after 3 hours at the earliest (3rd coat with SPCC after 3 hours at the earliest, application of SPCC after 12 hours at the earliest)

As bonding bridge:
Pre-wet the cleaned substrate sufficiently and keep it damp for 24 hours if possible, at least 2 hours before applying KEIM Concretal-MKH. KEIM Concretal-MKH Apply SPCC to the prepared surface and brush intensively. Apply bonding agent over the entire surface! Apply prepared KEIM Concretal-MKH within the processing time (see table "Technical data")! Stiffened KEIM Concretal-MKH must not be diluted with water or mixed with fresh KEIM Concretal-MKH! KEIM Concretal-MKH do not allow to dry out! Continue working wet-on-wet with KEIM Concretal-Mörtel-R, otherwise prepare again with fresh KEIM Concretal-MKH. Slurry large areas in sections with KEIM Concretal-MKH, as subsequent application with KEIM Concretal-Mörtel-R must be fresh-in-fresh.

SETTING TIME:
Between the 1st and 2nd coat, allow at least 3 hours
between 2nd coat and bonding bridge at least 3 hours
between 2nd and 3rd coat
- with SPCC min. 3 hours
- before application of SPCC min. 12 hours

WORKING TIMES

Temperature conditions	Processing times under different temperature conditions	Time units
at + 5°C	75	minutes
at + 20°C	60	minutes
at + 30°C	45	minutes

CLEANING OF TOOLS:
Clean tools, machines and mixers immediatley after use with water. In hardened state only a mechanical removal is possible.

5. PACKAGING

Container content	Unit of measure	Quantity on pallet	Type of container
20	kg	40	bag

6. STORAGE

max. storage time	Storage conditions
12 months	cool dry keep container tightly sealed.

7. DISPOSAL

For disposal information refer to section 13 of the safety data sheet.

Waste code: 17 01 01

8. SAFETY INSTRUCTIONS

Please, refer to the Material Safety Data Sheet.

GISCODE:

9. GENERAL INFORMATION

Cover surfaces not to be treated, especially glass, ceramics and natural stone. Any splashes on surrounding surfaces or traffic areas must be rinsed off immediately with plenty of water.
Mixing with products not part of the system or other foreign additives is not permitted.

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