TECHNICAL DATA SHEET

KEIM CONCRETAL®-MKH

1. PRODUCT DESCRIPTION

Mineral corrosion protection and bonding bridge for the KEIM Concrete Repair system to ZTV-ING TL/TP BE PCC I - II and DAfStb guidelines.

2. FIELD OF APPLICATION

Application as corrosion protection
Corrosion protection on de-rusted steel reinforcement which, after blasting, exhibits degree of cleanliness SA21/2 to DIN EN 12944-4.

Application as bonding bridge
For a non-interlocking bond between cement bound substrates and KEIM Concretal Repair Mortar for concrete repair to ZTV-ING for applications PCCI and II, and in building construction to DAfStb guidelines.

3. PRODUCT PROPERTIES

Single component, polymer modified, cement bound, to be mixed with water.

Active corrosion protection for steel reinforcement and protection against chlorides in the context of concrete repair. Bonding bridge for manually applied coarse mortar with elevated bond strength.

4. APPLICATION INSTRUCTIONS

Substrate preparation
Steel reinforcement
The steel reinforcement must be prepared to standard degree of cleanliness SA 21/2 to DIN EN ISO 12944-4. It must have no rust film and be free of other substances that have a release or corrosion promoting action. Quartz free bead blasting is a suitable cleaning method.

Concrete substrate
The substrate must be clean, sound, open pored and absorbent. Concrete substrates must be at least of quality B25. Roughen smooth, dense substrates. Remove dirt, laitance and unsound layers by blasting. Surfaces which have been treated with water repellent sealants or evaporation protection agents are not suitable. Surfaces should be pretreated using a suitable process, such as sand blasting or high-pressure water blasting.

Mixing
KEIM Concretal MKH should be added into the required amount of water with constant stirring and mixed to a homogeneous, lump free mixture until a readily brush-able consistency is obtained. The duration of mixing is 5min. Slow running stirrers should be used.

Mixing ratio
Approx. 3.6 to 3.8 lt of water is required for a 20 kg sack. Water should be added according to temperature conditions: low temperature will require less water than high temperatures.

Application as corrosion protection
KEIM Concretal MKH should be applied onto the prepared steel reinforcement using suitable paintbrushes in two or three applications. Two coats are necessary for PCC applications, three coats for SPCC applications. Each coat must be applied all round, covering the entire surface.

Care must be taken to ensure that tie wires, edges etc. are carefully coated in order to achieve the necessary application rate.

Waiting time at 20°C:
1st Coat: immediately after de-rusting.
2nd Coat: after a minimum period of 3 hours.

Application of bonding bridge: after a minimum period of 3 hours. (3rd Coat for SPCC after a minimum period of 3 hours, application of SPCC after a minimum period of 12 hours).

Application as a bonding bridge
The cleaned substrate must be pre-wetted and kept moist, if possible for 24 hours, but for at least 2

Version 05/2018

hours before applying KEIM Concretal MKH. Apply KEIM Concretal MKH onto the prepared area and work in well.

Apply bonding bridge over entire area. Apply mixed KEIM Concretal MKH within the working time (see "Technical data" table). Stiffened Mixed materials must not be diluted with water or mixed with fresh KEIM Concretal MKH.

Do not allow KEIM Concretal MKH to dry out.

Immediately apply KEIM Concretal Repair Mortar wet-on-wet, otherwise prepare again with fresh KEIM Concretal MKH. Work KEIM Concretal MKH into large areas, section by section, to ensure that the subsequent coat of KEIM Concretal Repair Mortar can be applied fresh-on-fresh.

Application conditions
Ambient and substrate temperature above 5°C and below 30°C. Do not apply in direct sunlight or onto sun-heated surfaces, nor if it is raining or if there is an immediate likelihood of rain.

Cleaning of tools
Clean immediately after use with water.

Application data/technical data
Quantity of mixing water:
• 3.6 - 3.8 lt for 20 kg of dry powder,
Mixing ratio, parts by mass:
100 kg dry powder to18-19 lt water

Mixing period:	5 min.
Maturing period:	none
Fresh mortar density:	2.10g/m³

Working times:

at 5°C	75minutes
at 20°C	60 minutes
at 30°C	45 minutes

Waiting times:
Between 1st and 2nd coat at least 3 hours, between 2nd coat and bonding bridge at least 3 hours, (between 2nd and 3rd coat, for SPCC, at least 3 hours, before application of SPCC at least 12 hours).

Consumption:
120g/linear metre 1mm diameter as corrosion protection (2 coats)
180g/linear metre 16mm diameter as corrosion protection (3 coats)
1000-1100g/m² as bonding bridge (consumption figures dependent on substrate texture and temperature).

Consumption rates are offered for guideline purposes only and are quoted for smooth surfaces. Actual rates are the responsibility of the applicator. Project specifications should be referred to for specific rates.

5. PACKAGING

20 kg sacks

6. STORAGE

Shelf life is approx. 12 months if kept dry, cool, but frost-free in tightly closed containers. Protect from moisture.

7. DISPOSAL

EC Waste Code No. 17 01 01

Any residues must be emptied out of containers before recycling.

8. SAFETY INSTRUCTIONS

Cover surfaces which are not to be painted, in particular glass, natural stone, ceramics etc. Protect the eyes and skin from splashes. Keep out of reach of children.

Please, refer to the EC Material Safety Data Sheet

Version 05/2018

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