TECHNICAL DATA SHEET

KEIM CONCRETAL®-MKH

1. PRODUCT DESCRIPTION

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

2. FIELD OF APPLICATION

Application as corrosion protection:
Corrosion protection on derusted steel reinforcement which, after blasting, exhibits degree of cleanliness SA 2½ to DIN EN 12944-4.

Application as bonding bridge:
For a non-interlocking bond between cement-bound substrates and KEIM Concretal-Mörtel-R in concrete repair in civil engineering and bridge construction to ZTV-ING for applications PCC I and II, and in building construction to DAfStb guidelines.

3. PRODUCT PROPERTIES

Single-component, polymer-modified, cement-bound, mixing liquid 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

Application methods:
As corrosion protection using a paintbrush, as bonding bridge using a brush.

Substrate preparation:
Steel reinforcement:
The steel reinforcement must be prepared to standard degree of cleanliness SA 2½ to DIN EN ISO 12944-4. It must have no rust film and be free of other substances with a release or corrosion-promoting action. Quartz-free bead blasting is a suitable cleaning method.

Concrete substrate:
The substrate must be clean, solid, open-pored and absorbent. Concrete substrates must be at least of quality C20/25. 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 (for further details, see ZTV-ING, part 3, section 4, table 3.4.2., preparation of concrete substrate). Surfaces should be appropriately pretreated using a suitable process, such as sand blasting or high pressure water blasting.

Mixing:
KEIM Concretal-MKH is sprinkled into an initially introduced amount of water with constant stirring and mixed to a homogeneous, lump-free mixture until a readily brushable consistency is obtained. The duration of mixing is 5 min. Slow-running stirrers should be used.

Mixing ratio:
Approx. 3.6 - 3.8 l of water are required for a 20 kg container. Water is added depending on temperature conditions: low temperature = low water requirement; high temperature = higher water requirement.

Application as corrosion protection:
KEIM Concretal-MKH is applied onto the prepared steel reinforcement using suitable paintbrushes in two or three operations. 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 here 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 derusting.
2nd coat once at least 3 hours have elapsed.
Application of bonding bridge once at least 3 hours have elapsed.
(3rd coat for SPCC once at least 3 hours have elapsed, application of SPCC once at least 12 hours have elapsed).

Application as bonding bridge:
The cleaned substrate must be prewetted and kept moist, if possible for 24 hours, but at least for 2 hours before applying KEIM Concretal-MKH. Apply KEIM Concretal-MKH onto the prepared area and brush in vigorously. Apply bonding bridge over entire area. Apply mixed KEIM Concretal-MKH within the working time (see „Technical data" table). Stiffened KEIM Concretal-MKH must neither be diluted with water nor mixed with fresh KEIM Concretal-MKH. Do not allow KEIM Concretal-MKH to dry out. Immediately apply KEIM Concretal-Mörtel-R wet-on-wet, otherwise prepare again with fresh KEIM Concretal-MKH.

Stand 01/19

▶

Work KEIM Concretal-MKH into large areas section by section, as the subsequent coat of KEIM Concretal-Mörtel-R must be applied fresh-on-fresh.

Cleaning of tools:
Clean tools, machinery and mixers with water immediately after use. After hardening, mechanical removal is the only option.

Application data/Technical data:
Quantity of mixing water:
3.6 - 3.8 l for 20 kg of dry powder,

Mixing ratio, parts by mass:
100 : 18-19 dry powder : water

Mixing period:	5 min.
Maturing period:	none
Fresh mortar density:	2.10 kg/dm³

Working times:
at + 5 °C 75 minutes
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:
- 120 g/linear metre 8 mm diam. as corrosion protection (2 coats)
- 180 g/linear metre 8 mm diam. as corrosion protection (3 coats)
- 1000-1100 g/m² as bonding bridge (consumption figures dependent on substrate roughness and temperature).

Application conditions:
From + 5 °C up to max. + 30 °C air and substrate temperature.

5. PACKAGING

20 kg sack

6. STORAGE

Approx. 12 months when stored under cool, dry conditions in original packaging.

7. DISPOSAL

EC Waste Code No. 17 01 01
Any residues must be emptied out of containers before recycling.

8. SAFETY INSTRUCTIONS

Giscode: ZP 1

Provide appropriate protection for surfaces which are not to be coated (e.g. glass, natural stone, ceramics etc.). Any splashes on surrounding surfaces or traffic areas must be rinsed off immediately with plenty of water. Protect the eyes and skin from splashes. Keep out of reach of children.
Low chromate content to TRGS 613

Please refer to EC Safety Data Sheet.

Stand 01/19

KEIMFARBEN GMBH
Keimstraße 16 / 86420 Diedorf / Tel. +49 (0)821 4802-0 / Fax +49 (0)821 4802-210
Frederik-Ipsen-Straße 6 / 15926 Luckau / Tel. +49 (0)35456 676-0 / Fax +49 (0)35456 676-38
www.keim.com / info@keimfarben.de