



## TECHNICAL DATA SHEET

# KEIM CONCRETAL<sup>®</sup>-UM 0.5

## 1. PRODUCT DESCRIPTION

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Rapid repair mortar for concrete repair in building construction according to EN 1504-3 class R3 for normal and lightweight concrete. Fibre-reinforced with integrated bonding agent and corrosion protection.

## 2. FIELD OF APPLICATION

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Quick-repair mortar for reprofiling faulty and broken-out areas in building construction. Layer thicknesses of 1 mm to 30 mm, partial 60 mm - multi-layer depending on requirements.

## 3. PRODUCT PROPERTIES

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- processable without corrosion protection and bonding bridge
- stable in wall and overhead areas
- fast setting
- distinct adhesive capacity
- resistant to freeze/thaw cycle and temperature changes
- synthetic-modified

### MATERIAL CHARACTERISTICS:

- Fresh mortar bulk density: approx. 1,85 kg/dm<sup>3</sup>
- Maximum grain size: 0.5 mm
- Mixing time: 3 min.
- Dynamic e-module:  $\geq 20$  GPa

### CLASSIFICATION:

- Compressive strength (28d):  $\geq 45$  N/mm<sup>2</sup>
- Flexural strength (28d):  $> 6$  N/mm<sup>2</sup>

### COLOUR SHADES:

grey

## 4. APPLICATION INSTRUCTIONS

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### SUBSTRATE PREPARATION:

The substrate must be clean, sound and free from all separating substances such as dust, oil, etc. Roughen dense, smooth substrates. Remove dirt, cement slurry and non-load-bearing layers by sandblasting or blocking. The required minimum adhesive tensile strength for mineral substrates should comply with the relevant technical regulations (DAfStb; ZTV-ING guideline for protection and repair of concrete components).

### Reinforcing steel:

Reinforcing steels are to be derusted according to DIN EN ISO 12944-4 up to the standard degree of purity Sa 2 1/2. Quartz-free granulate blasting is a suitable cleaning method. If the exposed and derusted reinforcing steel is covered by  $< 10$  mm, apply two coats of KEIM Concretal-MKH to protect against corrosion.

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### APPLICATION CONDITIONS:

Ambient and substrate temperature during application and drying from  $\geq 5$  °C to  $\leq 35$  °C. Do not apply in direct sunlight or on sun-heated substrates. Protect surfaces from direct sun, wind and rain during and after application.

### PREPARATION OF MATERIAL / MIXING & CONVEYING:

Add KEIM Concretal-UM 0.5 to an initial amount of 3,5 - 4.0 l of clean water per bag and mix until homogeneous with a compulsory mixer or

slow-running stirrer for approx. 3 min.. Mixing by hand is not allowed.

Low temperatures and cold addition water retard strength development, require intensive forced mixing. Higher temperatures accelerate.

### APPLICATION

Pre-wet the substrate before re-profiling the break-out areas. Highly absorbent substrates must be pre-wetted several times, avoid standing water. First, a thin layer of KEIM Concretal-UM 0.5 is pre-filled into the substrate, which is only matt damp, and then reprofiled wet-on-wet. Broken out areas with a depth greater than 30 mm must be reprofiled in several layers. Spray application is not possible. KEIM Concretal-UM 0.5 can be smoothed after application and rubbed down with a rubbing board. Carefully level transition areas to the concrete. The strength behaviour is adapted to the requirements of normal building construction.

### LAYERING SYSTEM:

per work step: 1 mm min. layer thickness and 30 mm max. layer thickness

Total layer thickness: max. 60 mm

### AFTERTREATMENT:

KEIM Concretal-UM 0.5 must be protected from drying out too quickly due to sun or wind, e.g. by covering directly (masking with foil) or keeping moist by laying mats and spraying with water.

### FINISHING:

For recoating, the rule of thumb for the curing time is: approx. 1 mm / day (at 20 °C and 60 % relative humidity).

### WORKING TIMES:

Temperature conditions	Processing times under different temperature conditions	Time units
at + 20 °C	20	minutes

### CONSUMPTION:

approx. 1,6 kg/m<sup>2</sup> per mm

These material consumption values are guide values for smooth substrates. Exact consumption values must be determined by means of test areas.

### CLEANING OF TOOLS:

Clean immediately with water.

## 5. PACKAGING

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

## **6. STORAGE**

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<b>max. storage time</b>	<b>Storage conditions</b>
9 months	dry frost-free

## **7. DISPOSAL**

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

### **EC WASTE CODE:**

Waste code: 17 01 01

## **8. SAFETY INSTRUCTIONS**

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Please, refer to the Material Safety Data Sheet.

## **9. GENERAL INFORMATION**

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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.

The stated values and properties are the result of extensive development work and practical experience. Our recommendations for application, whether given verbally or in writing, are intended to provide assistance in the selection of our products and do not establish a contractual relationship. In particular, they do not release the purchaser and processor from the obligation to convince themselves of the suitability of our products for the intended application with due care, which is general practice in trade and crafts. The general rules of construction technology must be observed. We reserve the right to make modifications to improve the product or its application. This edition supersedes all earlier editions.

