

# KEIM Concretal® - Universal Mortar-S (Universalmörtel-S)

(Quick-setting repair mortar for concrete)



### 1. Product description

Quick-setting repair mortar for concrete repair in building construction according to EN 1504-3 for normal and light-weight concrete. Fiber-reinforced with integral bonding agent and corrosion protection.

### 2. Field of application

Quick-setting repair mortar for repairing defects and areas with surface loss in building construction. Layer thicknesses from 5 mm (0.2 in) to 30 mm (1.18 in) , up to 60 mm (2.36 in) , in multiple layers as required.

### 3. Product properties

- Polymer-modified hydraulically setting mortar
- Mixing clean water
- Can be applied without corrosion protection and bonding bridge
- Good adhesive power
- Stable in wall and overhead areas
- Resistant to freeze/thaw cycles and fluctuating temperatures
- Quick-setting

Strength characteristics adapted to the requirements of ordinary building construction.

### 4. Application instructions

#### Substrate preparation

The substrate must be clean, solid and free of any substances having a release action, such as dust, oil etc. Roughen smooth, dense substrates. Remove dirt, laitance and unsound layers by means of sand blasting or scabbling. The necessary minimum

tensile bond strength on mineral substrates should comply with relevant technical regulations (DAfStb guidelines for the protection and renovation of concrete components; ZTV-ING).

#### Steel reinforcement

Rust must be removed from steel reinforcement to standard degree of cleanliness SA 2½ to DIN EN ISO 12944-4. Quartz-free bead blasting is a suitable cleaning method. When exposed and clean rust free steel reinforcement is covered by a depth of less than 10 mm , two coats of KEIM Concretal-MKH must be applied for corrosion protection.

#### Mixing

Add KEIM Concretal - Universal Mortar-S (Universalmörtel-S) to an initial amount of clean water and mix until homogeneous with a compulsory mixer or slow-running stirrer for approx. 5 minutes. Mixing by hand is not permissible.

#### Mixing ratio:

3.75 - 4.00 l (0.99 - 1.06 gal) of water\* is required for 25 kg of KEIM Concretal-Universalmörtel-S.

\* Water is added depending on the desired consistency and temperature conditions (low temperature = low water requirement; high temperature = higher water requirement).

#### Application

Pre-wet substrate before re-profiling areas with surface loss. Highly absorbent substrates should be pre-wetted several times, avoiding standing water. A thin preliminary layer of KEIM Concretal - Universal Mortar-S (Universalmörtel-S) is initially applied onto the only matt moist substrate and then



re-profiled wet-on-wet. Areas with surface loss deeper than 30 mm (1.18 in) should be re-profiled in multiple layers. Spray application is not possible. After application, KEIM Concretal - Universal Mortar-S (Universalmörtel-S) may be smoothed and finished with a float carefully to fade out transitional zones to existing concrete.

### Post-treatment

KEIM Concretal - Universal Mortar-S (Universalputz-S) should be protected from direct sunlight and wind to prevent it from drying too rapidly, e.g. by covering and keeping moist.

### Application data/Technical data

Grain size: 0-1.2 mm  
 Fresh mortar bulk density: 1.85 kg/dm<sup>3</sup>  
 (115.49 lb/cu. ft.)  
 Compressive strength 28d: 49.3 N/mm<sup>2</sup>  
 (7150.36 psi)  
 Bending tensile strength 28d: 6.0 N/mm<sup>2</sup>  
 (870.23 psi)  
 Dynamic modulus of elasticity: 18.6 GPa  
 (1348.85 ton/sq. In.)  
 Working time: at + 20°C/68°F approx. 45 min.  
 (Prepare only as much mortar as can be used within the working time indicated)

Application temperature  
 (air and substrate): from 5°C to 30°C  
 (41 - 86°F)

Consumption rate: approx. 1.6 kg/m<sup>2</sup> per 1 mm  
 dry bagged mortar

Layer thicknesses:

- 5 mm (0.2 in) min. layer thickness
- 30 mm (1.18 in) max. layer thickness  
per application
- 60 mm (2.36 in) max. overall layer thickness

### 5. Packaging

25 kg sack

### 6. Storage

Storage life 12 months in unopened original packaging under dry, frost-free conditions.

### 7. Hazardous substances ordinance class

Xi Irritant,  
 R 37: Irritating to respiratory system.  
 R 38: Irritating to the skin.  
 R 41: Risk of serious damage to the eyes.  
 S 2: Keep out of reach of children.  
 S 22: Do not inhale dust.  
 S 24/25: Avoid contact with skin and eyes.  
 S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
 S 36: Wear suitable protective clothing.  
 S 37/39: Wear suitable gloves and eye/face protection.  
 S 46: If swallowed, seek medical advice immediately and show this container or label.

### 8. Transport hazard class

n/a



## 9. Disposal

EC Waste Code No. 17 01 01

Any residues must be emptied out of containers before recycling.

## 10. Safety instructions

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.

Giscode: ZP 1

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