



TECHNICAL DATA SHEET

KEIM CONCRETAL®-FEINSPACHTEL

1. PRODUCT DESCRIPTION

Fine filler for the KEIM Concretal concrete repair system according to ZTV-ING TL/TP BE PCC and TL/TP OS, as well as according to DAfStb guideline and EN 1504-3 class R2.

2. FIELD OF APPLICATION

Filler layer after concrete repair with KEIM Concretal-Mörtel-R on vertical and non-traffic exposed concrete surfaces in civil engineering and bridge construction according to ZTV-ING and in building construction according to DAfStb guideline. In structural engineering, trowel coat after application of KEIM Concretal Universal Mortar-S. KEIM Concretal-Feinspachtel serves as substrate for surface protection systems according to ZTV-ING OS-C, or DAfStb guideline OS-4. KEIM Concretal-Feinspachtel can be applied in layer thicknesses from approx. 0.5 mm to max. 4 mm. KEIM Concretal-Feinspachtel can be used as a scratch filler to close pores and blowholes and can be sprayed using the wet spraying method.

With the addition of KEIM Concretal-Spezialvergütung to the mixing water, application as a blowhole filler is possible.

3. PRODUCT PROPERTIES

- one-component
- low-shrink
- crack-free hardening
- frost-resistant and salt-resistant
- resistant to aging
- synthetic-modified

MATERIAL CHARACTERISTICS:

- | | |
|------------------------------|-------------------------|
| - Fresh mortar bulk density: | 2,08 kg/dm ³ |
| - Maximum grain size: | 0.2 mm |
| - Mixing time: | 5 min. |
| - Maturing time: | none |

CLASSIFICATION:

- | | |
|-------------------------------|------------------------|
| - Compressive strength (28d): | > 32 N/mm ² |
| - Compressive strength (7d): | > 27 N/mm ² |
| - Flexural strength (28d): | > 10 N/mm ² |
| - Flexural strength (7d): | > 9 N/mm ² |

COLOUR SHADES:

grey

4. APPLICATION INSTRUCTIONS

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SUBSTRATE PREPARATION:

The substrate must be clean, sound, open-pored and absorbent. It must be dust-free and load-bearing. Roughen dense, smooth substrates. Remove dirt, cement slurries and non-load-bearing layers by blasting (for explanations, see ZTV-ING Part 3 Section 4 Tab. 3.4.2, Preparation of the concrete substrate). The surface tensile strength of the substrate must comply with the relevant technical regulations ZTV-ING or Rili-SIB. Depending on the absorption behaviour, the substrate must be pre-wetted from approx. 2 hours prior to application of KEIM Concretal-Feinspachtel. The substrate should be matt damp but not saturated with water, avoid standing water.

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.

PREPARATION OF MATERIAL / MIXING & CONVEYING:

Add KEIM Concretal-Feinspachtel to an initial amount of 4,3 - 4.5 l of clean water per bag and mix until homogeneous with a compulsory mixer or slow-running stirrer for approx. 5 min.. Mixing by hand is not allowed. Water addition depends on temperature conditions:
low temperature = low water requirement
high temperature = higher water requirement

APPLICATION

Apply the mixed KEIM Concretal-Feinspachtel with a trowel in layer thicknesses from approx. 0.5 mm to max. 4 mm. In case of full filling, apply max. layer thickness per working cycle 2 mm. For larger pores and cavities, apply a scratch coat to close the roughness (with a hard rubber trowel). KEIM Concretal-Feinspachtel can also be used without surface application as a scratch filler to close pores and cavities. Screw pumps with variable delivery rates are particularly suitable for wet spraying. When used as a blowhole slurry, the addition of KEIM Concretal-Spezialvergütung (special hardener) to the mixing water is required: 25 kg dry filler is mixed with 4.50 l water mixed with 1.5 l KEIM Concretal-Spezialvergütung (special hardener). For very fine fillers, the addition of KEIM Concretal-Spezialvergütung (special hardener) is recommended (for 25 kg dry filler: 3.50 l water + 1 l special mortar). (See technical data sheet KEIM Concretal-Spezialvergütung (special hardener)). After applying the filler, the surface is smoothed with a trowel and rubbed down with a dry soft sponge or felt plane. In case of spray application, the surface can also be left rough as a result of spraying. Stiffened filler must not be diluted with water or mixed with fresh KEIM Concretal-Feinspachtel.

Special instructions: When working according to ZTV-ING, only whole containers may be used. The curing time prescribed for the repair mortar may be interrupted for application of the KEIM Concretal-Feinspachtel. After completion of the trowelling process, the curing time of 5 days must be observed, e.g. by direct covering (masking with foil) or spraying with water (see ZTV-ING).

KEIM Concretal-Feinspachtel is tested according to ZTV-ING.

WORKING TIMES:

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

CONSUMPTION:

approx. 1,75 kg/m² per mm for full-cover skim coating approx. 0,8 - 1,5 kg/m² bei Kratzspachtelung (abhängig vom Porenvolumen)

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 tools, machines and mixers immediately after use with water. In hardened state only a mechanical removal is possible.

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5. PACKAGING

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

6. STORAGE

max. storage time	Storage conditions
12 months	cool dry

7. DISPOSAL

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

EC WASTE CODE:

Waste code: 17 01 01

8. SAFETY INSTRUCTIONS

Please, refer to the Material Safety Data Sheet.

GISCODE:

GIS code: ZP 1

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.

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.