



## KEIM Concretal®-Spachtel (filler)

### 1. Product description

Fine filler for the KEIM Concretal® concrete repair system for applications PCC II and PCC III of ZTV-SIB 90.

### 2. Field of application

Filler coat after concrete repair using KEIM Concretal®-Mörtel on vertical fair-faced concrete surfaces and such surfaces which are not used for traffic in civil engineering and bridge building in accordance with ZTV-SIB 90 for applications:

PCC II: Surfaces not fit for traffic, dynamic stress (e.g. undersides of bridges).

PCC III: Surfaces not fit for traffic, no dynamic stress (e.g. bulkheads, abutments).

As filler on KEIM Concretal®-Mörtel-25LB in high rise construction.

KEIM Concretal®-Feinspachtel serves as an undercoat for surface protection systems in accordance with ZTV-SIB 90 OS-C.

KEIM Concretal®-Feinspachtel may be applied in layer thicknesses from approx. 0.5 mm to at most 4 mm.

KEIM Concretal®-Feinspachtel may be used as a scratch filler to close pores and blowholes and can be applied by wet spraying.

With the addition of KEIM Concretal®-Spezialvergütung to the make-up water, the product may be used as a blowhole grout.

### 3. Product properties

Low shrinkage and crack-free hardening, water resistant, frost resistant, resistant to de-icing salt and ageing, creates a level and blowhole-free surface.

### Material base

Portland cement to DIN 1164, silica sand, aggregates and organic additives.

### 4. Application instructions

#### Application methods

Smoothing trowel, float, wet spraying  
Scratch filling with hard rubber float  
Blowhole grout with brush

#### Substrate preparation

The substrate must be clean, solid, porous and absorbent. It must be free of dust and sound. Roughen smooth or dense substrates. Remove dirt, laitance and unsound layers by jetting (for further details, see ZTV-SIB 90, table 2, preparation of concrete substrate).

The surface tensile strength of the substrate must comply with the relevant technical regulations, ZTV-SIB or Rili-SIB.

Depending on absorbency, the substrate must be prewetted approx. 2 hours before application of KEIM Concretal®-Feinspachtel. The substrate should be moistened but not saturated, and standing water should be avoided.

#### Application

Place at least 4.75 l, at most 5.0 l, of water\* into a clean container, add 25 kg of KEIM Concretal®-Feinspachtel and mix for approx. 5 minutes until lump-free.

Low speed stirrers or compulsory mixers are suitable for mixing. Mixing by hand is not permissible.

Apply the prepared KEIM Concretal®-Feinspachtel with a float in layers of approx. 0.5 mm to 4 mm, using a maximum layer thickness per operation of 2 mm when applying a continuous filler coat. Relatively large pores and blowholes should be closed with scratch filler applied using a hard rubber float.

KEIM Concretal®-Feinspachtel may be used as a scratch filler to close pores and blowholes even if a continuous coat is not applied.

Variable delivery screw pumps are particularly suitable for wet spraying.



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KEIM Concretal®-Spezialvergütung must be added to the make-up water when using the product as blowhole grout:

25 kg of dry filler are made up with 5 l of water mixed with 1 l of KEIM Concretal®-Spezialvergütung.

It is advisable to add KEIM Concretal®-Spezialvergütung for very fine fillers (4 l of water + 1 l Spezialvergütung for 25 kg of dry filler). (See technical data sheet for KEIM Concretal®-Spezialvergütung.)

Once the filler has been applied, the surface is smoothed with a float and rubbed down with a soft dry sponge or felt pad. When spray application is used, the as-sprayed surface may also be retained.

Hardened filler must not be diluted with water or mixed with fresh KEIM Concretal®-Feinspachtel.

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

#### **Application conditions**

KEIM Concretal®-Feinspachtel should not be applied when substrate and air temperatures are below +5°C and above +30°C or when the substrate is exposed to high temperatures or strong wind.

#### **Consumption (dry filler)**

Continuous filler coat: approx. 1.7 kg/m<sup>2</sup> with a layer thickness of 1 mm; scratch filler: approx. 0.8--1.5 kg/m<sup>2</sup> (depending on pore volume)

#### **Cleaning of tools**

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

#### **Special comments**

When performing application in accordance with ZTV-SIB 90, only whole bags may be used.

The specified after-treatment time for repair mortar can be interrupted in order to apply KEIM Concretal®-Feinspachtel.

Once the filler has been applied, observe the after-treatment time of 5 days, for example by direct covering (masking with film) or spraying with water (see ZTV-SIB 90). KEIM Concretal®-Feinspachtel has been tested to ZTV-SIB 90.

## **5. Packaging**

25 kg kraft paper sack

## **6. Storage**

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

## **7. Hazardous Substances Ordinance class**

Xi Irritant, contains cement (low chromate content to TRGS (German Technical Rules for Hazardous Substances) 613)

R36/38: Irritating to eyes and skin.

S2: Keep out of reach of children.

S24/25: Avoid contact with skin and eyes.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S37/39: Wear suitable gloves and eye/face protection.

## **8. Disposal**

EC Waste Code no. 10 13 99

Any residues must be emptied out of containers before recycling.

## **9. 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.

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 those purchasing and applying our products from the duty of establishing for themselves, with due care, the suitability of our products for the intended application. Standard building industry practices must be complied with. We retain the right to make modifications to improve the products or their application. This edition supersedes all earlier editions.



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## Application data/ technical data

Quantity of make-up water 25 kg dry filler	min 4,75 ltr max 5 ltr
Mixing period	5 min
Maturing period	none
Fresh mortar density	2,01 kg/dm <sup>3</sup>
Workingtime	
at + 5°C	60 min
at + 20°C	45 min
at + 30°C	30 min
Application temperature	+5°C bis +30°C
Grain size	0-0,3 mm
Compressive strength	
after 7 days	30,0 N/mm <sup>2</sup>
after 28 days	40,1 N/mm <sup>2</sup>
Bending strength	
after 7 days	6,0 N/mm <sup>2</sup>
after 28 days	7,3 N/mm <sup>2</sup>
Pull-off strength	
after temperature change	2,5 N/mm <sup>2</sup>
Shrinkage, 90d	1,13 mm/m