

KEIM Concretal Feinspachtel (Fine filler for concrete)



1. Product description

Fine filler for KEIM Concretal concrete repair system to ZTV-ING TL/TP BE PCC and TL/TP OS and DAfStb guidelines.

2. Field of application

Filler layer for fine finishing after concrete repair with KEIM Concretal-Mortar-R on vertical and non-traffic fair-faced concrete surfaces in civil engineering and bridge building to ZTV-ING and in building construction to DAfStb guidelines.

In building construction, as a finish layer after application of KEIM Concretal-Universal mortar.

KEIM Concretal-Feinspachtel (Fine Filler) acts as a substrate for surface protection systems to ZTV-ING OS-C or DAfStb guidelines OS-4.

KEIM Concretal-Feinspachtel (Fine Filler) may be applied in layer thicknesses from approx. 0.5 mm to at most 4 mm.

KEIM Concretal-Feinspachtel (Fine Filler) may be used as a crack filler or as a scratch coat to close pores and blowholes. It can also be applied by wet spraying.

With the addition of KEIM Concretal-Spezialvergütung (special additive) to the mixing water, the product may be used as a blowhole grout and crack filler.

3. Product properties

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

Material base

Single-component, polymer-modified, cement-bound filler, mixed with water.

4. Application instructions

Application methods

Smoothing trowel, float, wet spraying, scratch filling with hard rubber float as blowhole grout and crack filler, or may be applied with a brush.

Substrate preparation

The substrate must be clean, solid, open-pored 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-ING, part 3, section 4, table 3.4.2., preparation of concrete substrate).

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

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

Application

Place at least 4.25 l (1.12 fl gal), at most 4.50 l (1.18 fl gal), of water* into a clean container, add 25 kg of KEIM Concretal-Feinspachtel (Fine Filler) 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 mixed KEIM Concretal-Feinspachtel (Fine Filler) with a float in layer thicknesses from a minimum of 0.5 mm up to 4 mm. In the case of full-cover filling, max. layer thickness per application 2



mm. Relatively large pores and blowholes should be closed with scratch filler applied using a hard rubber float.

KEIM Concretal-Feinspachtel (Fine Filler) may be used as a scratch filler to close pores and blowholes even if a full-cover coat is not applied. Variable delivery screw pumps are particularly suitable for wet spraying.

KEIM Concretal-Spezialvergütung (special additive) must be added to the mixing water when using the product as blowhole grout or crack filler: 25 kg of dry filler are mixed with 4.50 l (1.18 fl gal) of water, itself mixed with 1.5 l (0.4 fl gal) of KEIM Concretal-Spezialvergütung (special additive). It is recommended to add KEIM Concretal-Spezialvergütung in the case of very fine filler coats (3.50 l (0.92 fl gal) of water + 1 l (0.26 fl gal) 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 finished with a soft dry sponge or felt pad. When spray application is used, the as-sprayed surface may also be retained.

Stiffened filler must not be diluted with water or mixed with fresh KEIM Concretal-Feinspachtel (Fine Filler).

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

Application conditions

KEIM Concretal-Feinspachtel (Fine Filler) should not be applied when substrate and air temperatures are below +5°C (41°F) and above +30°C (86°F) or when the substrate is exposed to high temperatures or strong wind.

Consumption (dry filler)

Full-cover filling approx. 1.75 kg/m² at 1 mm layer thickness.

Scratch filling approx. 0.8-1.5 kg/m² (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-ING, only whole containers may be used.

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

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-ING). KEIM Concretal-Feinspachtel (Fine Filler) has been tested to ZTV-ING.

Application data/Technical data

Quantity of mixing water

with 25 kg (55 lbs.) of dry powder:

min. 4.25 l (1.12 fl gal)

max. 4.5 l (1.18 fl gal)

Mixing period: 5 minutes

Maturing period: none

Fresh mortar bulk density: 2.08 kg/dm³
129.9 lbs./cu.ft.

Working time: at + 5°C (41°F) 60 minutes
at + 20°C (68°F) 45 minutes
at + 30°C (86°F) 30 minutes



Application temperature: from +5°C to +30°C
(41°F - 86°F)

1st/2nd layer waiting time: 1 hour Min.

Consumption (dry powder): 1.75 kg/m²
0.358lb./Sq.Ft.
at 1 mm layer thickness

Grain size: 0 to 0.2 mm

Compressive strength:
after 7 days 27.0 N/mm² (3916 psi.)
after 28 days 32.0 N/mm² (4641 psi.)

Bending strength:
after 7 days 9.0 N/mm² (1305 psi.)
after 28 days 10.0 N/mm² (1450 psi.)

5. Packaging

25 kg (55lb.) sack

6. Storage

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

7. Hazardous substances ordinance class

Xi Irritant,
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 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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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
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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
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modifications to improve the products or their application. This edition
supersedes all earlier editions.

