

Cement based floor leveller

PCI Zemtec® 1K

for residential and commercial buildings

PCI®

Für Bau-Profis



Fields of application

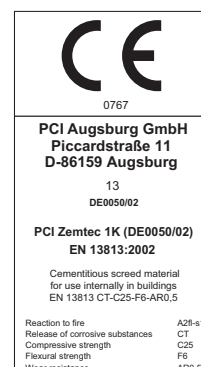
- For indoor use.
- Cementitious floor leveller for irregular concrete floors and cement screed surfaces.
- Suitable for exposure to air-filled tyres and solid rubber tyres.
- For direct use in dry areas in the interior, e.g. warehouses, workshops, basement rooms etc.
- For layer thickness from 3 to 30 mm.



PCI Zemtec 1K self-levelling floor leveller for direct use applied over the entire area.

Features and benefits

- Awarded the ecolabel "Blauer Engel" due to low emissions (RAL UZ 113).
- Fibre reinforced.
- Pumpable, can be applied by machine, therefore high output possible.
- Self levelling, easy to apply, requires little effort.
- High abrasion resistance, suitable for vehicles with air-filled tyres and solid rubber tyres.



Technical data

Material

Material base	special cement with additives + fibres
Components	single component
Behaviour in fire	A2(f1) - s1 (non combustible)
Consistency	powder
Colour	grey
Shelf life	min. 6 months; store dry, no permanent storage over +30°C. Tightly seal opened bags and use up within a short period.
Packaging size	25 kg PE lined heavy duty paper bag stock no. 819/5

Application

Consumption	1.6 kg powder per m² and mm layer thickness
Layer thickness	3 to 30 mm
Slake time	3 minutes
Working temperature	+5°C to +25°C
Mixing ratio	25 kg PCI Zemtec 1K + 5.25 to 5.50 l water For partial quantities: 1 kg PCI Zemtec 1K + 210 to 220 ml water
Mixing tools/conveying units	e.g. Collomix XM2-650; Putzmeister S 5 with pan mixer TM 100; MP 25 with in-line mixer, SP 11; PFT G4 with in-line mixer, Swing L with Multimix; M-Tec Duomix 2000, Ülzener S48.3 with in-line mixer, S30 with pan mixer
Mixing time	minimum 3 minutes
Consistency (mixed mortar)	very fluid
Working time*	approx. 30 minutes
Curing time*	
- walkable after	approx. 3 hours
- PCI sealing can be applied after	approx. 24 hours
- able to bear weight after	approx. 7 days

* At +23 °C and 50% relative humidity. Higher temperatures reduce, lower temperatures increase the times given.

Preparation of substrate

■ The substrate must be clean, dry, structurally sound, able to bear weight, free of grease and other residues. Remove heavy contamination mechanically, residues of oil and wax with PCI Entöler oil

remover. Fill spalled areas and holes with suitable PCI repair mortars, e.g. PCI Novoment M1 Plus, PCI Novoment M3 Plus or PCI Nanocret. Fill cracks with PCI Apogel. The average pull-off strength must not fall

below 1.5 N/mm² (lowest single value 1.0 N/mm²). The surface must be prepared by milling, grinding or shot-blasting (Blastrac).

Priming

Prime with PCI Gisogrund 404.

Wear eye protection during the application.

1 Stir PCI Gisogrund 404 thoroughly.
2 Apply primer to the cleaned, prepared substrate in criss-cross method using a float, soft broom or brush. Avoid puddles forming!

Cement screeds: Apply enough PCI Gisogrund 404, diluted 1 : 3 with water, two layers.

Concrete substrates: Apply enough PCI Gisogrund 404, diluted 1 : 2 with water, two layers.

3 Apply PCI Zemtec 1K to the cured, walkable primer (after approx. 3 hours at the earliest at +23°C and humidity < 50%).

Application procedure of PCI Zemtec 1K

1 Fill cool gauging water for 25 kg of PCI Zemtec 1K in a clean, sturdy mixing bucket of appropriate height, diameter approx. 35 cm. Add PCI Zemtec 1K and mix for at least 3 minutes until lump free using a suitable paddle (e.g. from Collomix). Leave to stand for approx. 3 minutes and remix briefly.

2 Use e.g. the Collomix XM2-650 mixer or a pump for larger areas. The stirrer for flowable screeds is to be used when working with the Collomix XM2-650 mixer. Fill gauging water in a bucket, add PCI Zemtec 1K and mix for at least 3 minutes.

3 Pour PCI Zemtec 1K onto the dry, cured primer and spread to the required thickness using a surface scraper. If the

visual appearance should be like a fair-faced floor leveller, the surface is to be de-aerated with a spiked roller and then smoothed with a finishing trowel.

4 In case of indoor application, avoid exposure to draught, excessive heat and direct sunlight for approx. 24 hours.

Post-treatment

PCI Zemtec Top can be applied to protect the surface. Slightly rough-grind PCI Zemtec 1K approx. 24 hours after the application, vacuum-clean thoroughly and seal with PCI Zemtec Top twice in criss-cross method. The use of PCI Zemtec Top in areas exposed to wheeled traffic might lead to an interaction with visible staining.



PCI Zemtec 1K, poured and spread on to the tack-free, cured primer, levelled and de-aerated with a spiked roller during the application.

This, however, has no effect on the functionality of the floor. PCI Zemtec 1K can also be covered with PCI primers, PCI sealers and PCI coatings.

Please note

- The professional installation of PCI Zemtec 1K requires an air temperature between +5°C and +25°C, the perfect temperature would be +20°C, a substrate temperature of at least 15°C and a relative humidity of maximum 65% (40% to 65% would be perfect). These ambient conditions should be maintained during the entire period of the application and for at least another three days.
- The substrate must be practically even; a slope of maximum 2% is allowed at a layer thickness of approx. 7 mm of the material installed.
- Make sure to use the same batch numbers of the material applied to

avoid considerable colour deviations and to achieve a nice visual appearance.

- Mix only as much PCI Zemtec 1K as can be applied within approx. 30 minutes.
- Never add water or fresh PCI Zemtec 1K to reconstitute a mortar mix which has already begun to set.
- It is important to adhere to the indicated amount of gauging water when mixing PCI Zemtec 1K. Additives are not allowed.
- Take appropriate measures, such as using temporary barrier strips, to prevent PCI Zemtec 1K from spreading to perimeter joints and adjoining areas.

- The spiked roller is to be selected according to the layer thickness of the material to be installed. Pin length = approximately twice the layer thickness.
- Suitable tools are available from e.g. Collomix GmbH, Horchstr. 3, 85080 Gaimersheim/Germany, www.collomix.de.
- Clean tools, machines and mixing equipment with water immediately after use; when the product has cured it can no longer be removed with water.
- Shelf life: min. 6 months; store in a dry place, no permanent storage over +30°C.

Declaration of Performance

The Declaration of Performance can be downloaded as pdf file under www.pci-augsburg.eu/dop.

Information on the safe use

PCI Zemtec 1K contains cement:
Causes serious eye damage. Causes skin irritation.
Keep out of reach of children. Wear protective gloves (e.g. cotton gloves soaked in nitrile) and eye/face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention. IF ON SKIN: Wash with plenty of soap and water and put skin cream on (pH value approx. 5.5). IF SKIN IRRITATION OCCURS: Get medical advice/attention.
The product is non-flammable.

No special fire precautions are therefore required.

Giscode ZP 1

For further information: see PCI Material Safety Data Sheet.

Disposal of product residues

Do not empty product/residues of material into drains, bodies of water or ground. Mix powder product residues

with water and allow to cure. Cured material residues can be disposed of as construction waste in accordance with

the local waste disposal regulations.

Disposal of emptied PCI sales packaging

PCI participates in an area-wide waste disposal system for sales packaging completely emptied. DSD – Duales System Deutschland (Dual System

Germany, contract number 1357509) is our partner for waste disposal. PCI sales packaging completely emptied can be disposed of via DSD in

accordance with the symbol printed on the packaging.

Services for architects and designers

Consultations at the workplace, supplementary information, testing

certificates and sample descriptions can be requested from professional advisors

and at the company headquarters.



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managementsystem

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Technical Data Sheet No. 198 (March 2017), Any subsequent publication supersedes this edition.
German edition July 2016; the latest edition is always available on the Internet under www.pci-augsburg.de