

Mineral waterproofing slurry

# PCI Barraseal®

for basements, drinking water and wastewater areas









## Fields of application

- For indoor and outdoor use.
- For wall, floor and overhead application.
- For producing cement-based waterproofing layers in structural and civil engineering construction, in new and old buildings.
- As waterproofing for all water exposure classes in accordance with DIN 18533 with official test certificate "mineral waterproofing slurry", on substrates where crack formation/change in width has been completed.
- For waterproofing reservoirs, e.g. drinking water, to DIN 18535 up to a filling level of 10 meters.
- As an intermediate waterproofing layer under bitumen thick coatings such as PCI Pecimor.
- For waterproofing basements, moist rooms and retaining walls.
- For protecting surfaces in accessible channels, open channels and sewage plants and other sewage structures.
- For waterproofing brickwork exposed to salt and moisture in combination with the PCI Saniment products.
- For waterproofing areas exposed / not exposed to water.



PCI Barraseal has a creamy consistency, pores and cavities can be closed easily and rapidly.

#### Features and benefits

- Water impermeable and frost resistant, multi-purpose use indoors and out up to a head of water of 10 meters.
- Creamy consistency, easy to apply.
- Can be applied by brush, trowel and spray gun.
- Reliable adhesion, no primer or bonding slurry required.
- Sulfate resistant against driving attacks in sewage areas.
- High resistance to permanent and mechanical loads.
- Excellent wet abrasion resistance, tested like non-vitrified pipes over 100,000 cycles.

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- Permanent resistance against heavy chemical attack of exposition class XWW3 to DIN 19573 (tested at ph 4.0).
- For use in accordance with EN 206-1 with exposition classes XS 1-3, XF 1-3, XA 1-3.
- With official test certificate for drinking water areas in accordance with DVGW worksheet W 347 / W 270.
- Official test certificate in accordance with test principles for mineral waterproofing slurries.
- Certified to EN 1504 part 2.

## **Technical data**

Material	

Material			
Material base	Special cement mix containing PCI polymers with waterproofing properties.		
Components	single component		
Consistency	powder		
Color	grey		
Classification of behavior in fire	A1fl		
Shelf life	at least 12 months; dry, no permanent storage over +30 °C		
Packaging size	25 kg PE lined heavy duty paper bag, stock no. 1419/6		
Application			
Processing temperature	+5 °C to +30 °C (substrate temperature)		
Quantity of gauging water			
- application by trowel	approx. 4.8 to 5.0 l (corresponds to 190 to 200 ml water for 1 kg powder)		
- application by brush	approx. 5.0 to 5.2 l (corresponds to 200 to 210 ml water for 1 kg powder)		
- application by spray gun	approx. 5.2 to 5.3 l		
Density of mixed material / fresh mortar	approx. 2.0 g/cm³		
Conveying units	e.g. Putzmeister S5, Sprayboy P12, PFT Swing L, Swing M, M-Tec Speedy MP, InoTec Inomat M8, Wagner PC430, Ülzener S30FR3, DESOI PowerPump PREKO-220 (GO)		
Layer thickness	minimum dry layer thickness	minimum consumption fresh mortar/m²	
- as intermediate layer	approx. 2.0 mm	approx. 4 kg (corresponds to approx. 3.3 kg powder)	
- as interior waterproofing of brickwork exposed to salt and moisture	approx. 2.0 mm	approx. 4 kg (corresponds to approx. 3.3 kg powder)	
- water reservoir with filling height ≤ 10 m	approx. 3.5 mm	approx. 7 kg (corresponds to approx. 5.8 kg powder)	
Coverage	25 kg of PCI Barraseal at a minimum application quantity cover approx.		
- as intermediate layer	approx. 7.6 m²		
- as interior waterproofing	approx. 7.6 m²		
- water reservoir with filling height ≤ 10 m	approx. 4.3 m²		
Processing time	approx. 60 minutes		
Can be covered with			

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- ceramic tiles after	approx. 2 days
- screed on isolation layer after	approx. 2 days
Application with bitumen thick coating after	approx. 1 day
Load capacity	
- exposure to light foot traffic after	approx. 2 days
- exposure to water after	approx. 3 days

<sup>\*</sup> At +23 °C and 50% relative humidity. Lower temperatures increase, higher temperatures reduce the times given.

## **Preparation of substrate**

Suitable substrates are structurally sound concrete, at least strength class C 12/15 to DIN EN 206-1, render of mortar group CS III / CS IV to DIN EN 998-1, brickwork made of sand-lime brick, joints filled with cement mortar. Hollow concrete blocks are to be rendered before coating in accordance with mortar class CS III / CS IV.

The substrate must be structurally sound, practically even and fine-pored in the surface. It must be free from gaping cracks and ridges, dust, tar, pitch, water-repellent additives, forming oil or other residues which could impair adhesion.

Smooth surfaces must be roughened with firm blasting agents (sandblasting). Prewet substrate and keep moist.

Fill spalled areas on walls and floors with PCI Nanocret R4 PCC or - up to 10 mm - with PCI Nanocret FC (depending on required layer thickness).

Fill **spallings in drinking water areas** with a mortar consisting of 3 parts of PCI Barraseal and 1 part of silica sand 0.3 - 0.8 mm.

## **Application procedure**

#### A minimum of two layers must be applied fully covering the substrate!

#### Maximum thickness per layer 2 mm.

The coating must have the required minimum thickness over its entire area to cope with the expected stress by water (see Technical Data/ Application).

#### 1 Application by brush

Fill 25 kg of PCI Barraseal in a clean bucket and mix with approx. 5.1 liters of water until lump free.

#### Application by trowel

Fill 25 kg of PCI Barraseal in a clean bucket and mix with approx. 4.9 liters until lump free. Use a suitable paddle (e.g. from Collomix) attached to a high-speed electric drill.

- 2 Thoroughly prewet the prepared substrate. It must be damp but not wet during the application of PCI Barraseal. Avoid puddles forming.
- 3 Apply first coat by brush until the entire surface is saturated, or use a trowel. Be sure that corners and rounded edges are fully covered.
- 4 Apply the second and subsequent coats (until the required layer thickness is reached) to the previous matt damp coat (moisten the layer that has already dried with a sponge board) or fill it in.
- **5** Using regular mortar pumps, PCI Barraseal can be thin-stream conveyed and sprayed in multiple layers up to a total thickness of maximum 5 mm.
- **6** The applied layer of PCI Barraseal which has already begun to set can be smoothed using a moist flat bristle brush or finishing trowel.
- 7 Keep the fresh coating moist for at least 24 hours and protect it from direct sunlight, draught, rain and temperatures below +5°C for approx. 2 days.

### Please note

- Clean tools with water immediately after use. The cured product can only be removed by mechanical scraping.
- For an additional render layer: apply a contact layer of PCI Barraseal to the cured PCI Barraseal and then apply the renovation render wet in wet.
- The guideline for the planning and execution of waterproofing structural elements with mineral waterpoof coatings issued by Deutsche Bauchemie must be followed when planning and executing waterproofing work with PCI Barraseal.
- For small spallings in the drinking water area, a mortar can be produced from 1 part of PCI Barraseal and 1 part fo silica sand No. 2 or silica sand (Pleinfelder V2) 0.3 0.8 mm. PCI Polyfix plus (L) can also be used. Other additions to PCI Barraseal are not permitted.
- It is expected that the waterproofing slurry will be damaged when exposed to water containing free, lime-aggressive carbon dioxide and/or by biogenic sulphuric acid.
- Never add water or fresh slurry to reconstitute a PCI Barraseal mix which has already begun to set.
- Do not backfill an excavation pit with rubble, coarse stones or debris.
- Use PCI Barraseal Turbo or PCI Pecimor to produce a crack-bridging waterproofing layer.
- PCI Barraseal is not suitable as bonded waterproofing under ceramic tiles in swimming pools.
- Suitable tools are available from Collomix GmbH, Horchstraße 2, 85080 Gaimersheim/Germany, www.collomix.de.

### **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 Barraseal contains cement:

Causes serious eye damage. Causes skin irritation. May cause respiratory irritation.

Keep out of reach of children. Wear protective gloves (e.g. cotton gloves soaked in nitrile) and eye protection/face protection. Avoid breathing dust. 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 INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Take off contaminated clothing and wash it before reuse. The product is non-flammable. No special fire precautions are therefore required.

Water hazard class 1 (self-rating).

Giscode ZP 1

For further information: see PCI Material Safety Data Sheet.

## 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.

## Disposal of emptied PCI sales packaging

You find more information on disposal on the Internet at <a href="https://www.pci-augsburg.eu/en/services/disposal-instructions-en/packaging">https://www.pci-augsburg.eu/en/services/disposal-instructions-en/packaging</a>. Do not allow product to enter drains, waterways or soil. Only recycle packaging that is completely empty. Hardened material residues can be disposed of as household waste. Dispose of product residues that have not hardened in the pollutant collection.

### **Technical Data Sheet** 2/24 PCI Barraseal®

#### Last revised in 2/24

This version will become invalid immediately upon the publication of a later version; you will always find the latest version on the Internet at www.pciaugsburg.de.

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The working conditions on construction sites and the areas of application of our products are highly diverse. In the technical data sheets, we can only give general instructions for the use of our products. These are in accordance with the information currently available to us. Architects, engineers and the users of our products are under an obligation to verify the suitability of our products and the feasibility of using them for their specific applications. For applications not explicitly referred to under "Area of applications" in the technical data sheet, architects, engineers and users of our products are under an obligation to obtain technical advice from PCI. In the event that the product is used outside the scope of applications defined in the technical data sheet without obtaining the advice of PCI, the user of the product will be liable for any loss or damage arising as a result of the use of the product. All the descriptions, drawings, photographs, data, conditions, weights, etc. stated in the technical data sheet may be changed without notice and do not represent the agreed properties of the product. Recipients of our products are under an obligation to comply with any proprietary rights and any applicable laws and regulations under their own responsibility. If trade names used by other companies are referred to in this technical data sheet, such references do not represent a recommendation for the use of such products and do not exclude the use of other comparable products. The information which we provide only describes the characteristics of our products and services and does not represent any guarantee. A guarantee of specific properties or the fitness of the product for a specific purpose cannot be derived from the information which we provide. We will not be liable for any incomplete or incorrect information in our information material except in the case of wilful act or omission or gross negligence. This disclaimer does not affect any claims under the Produkthaftungsgesetz (Product Liability Act).