

# 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.
- For waterproofing reservoirs, e.g. potable water reservoirs to
   DIN 18535 up to a filling level of 10 m.
- As an intermediate waterproofing layer under bitumen thick coatings such as PCI Pecimor.
- Features and benefits
- Water impermeable and frost resistant, multi-purpose use indoors and out up to a head of water of 10 m.
- Creamy and workable, easy to apply.
- Can be applied by brush, trowel and spray gun.
- Reliable adhesion, no primer or bonding slurry required.
- Sulphate 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.

- 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.
- 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 potable water areas in accordance with DVGW worksheet W 347/W 270.
- Official test certificate in accordance with the MDS test principles.
- Certified to EN 1504 part 2.







PCI Barraseal is creamy and workable, pores and cavities can be closed easily and rapidly.





PCI Barraseal®

# **Technical data**

### Material

Material base	Special cement mix containing PCI polymers with waterproofing properties. Does not contain asbestos or other mineral fibres, nor harmful, respirable dust.	
Components	single component	
Consistency	powder	
Colour	grey	
Density of mixed material	approx. 2.0 g/cm <sup>3</sup>	
Classification of behaviour in fire to DIN EN 13501-1	A1	
Shelf life	min. 12 months; dry, no permanent storage over +30°C	
Packaging size	25 kg PE lined heavy duty paper bag stock no. 1419/6	
Application		
Layer thickness and minimum consumption		
Use class	minimum dry layer thickness	minimum consumption fresh mortar/m <sup>2</sup>
- as intermediate layer	2.0 mm	4 kg (= approx. 3.3 kg powder)
- as interior waterproofing of brickwork exposed to salt and moisture	2.0 mm	4 kg (= approx. 3.3 kg powder)
- water reservoir with filling height $\leq$ 10 m	3.5 mm	7 kg (= approx. 5.8 kg powder)
Coverage	25 kg of PCI Barraseal at a minimum application quantity cover approx.	
- as intermediate layer	7.6 m <sup>2</sup>	
- as interior waterproofing	7.6 m <sup>2</sup>	
- water reservoir with filling height $\leq$ 10 m	4.3 m <sup>2</sup>	
Processing temperature	+5°C to +30°C (substrate temperature)	
Quantity of gauging water (for 25 kg bag)		
- application by trowel	4.7 to 5.0 I water ^= 190 to 200 ml water for 1 kg powder	
- application by brush	5.0 to 5.2 I water ^= 200 to 210 ml water for 1 kg powder	
- application by spray gun	5.2 to 5.3 I water	
Processing time*	approx. 60 minutes	
Conveying units	e.g. Putzmeister S5, Sprayboy P12, PFT Swing L, Swing M, M-Tec Speedy MP, InoTec Inomat M8, Wagner PC430, Ülzener S30FR3	
Load capacity*		
- exposure to pedestrian traffic after	approx. 2 days	
- exposure to water after	approx. 3 days	
- application with bitumen after	approx. 1 day	
Application of further layers* such as		
- ceramic tiles after	approx. 2 days	
- screed on isolation layer after	approx. 2 days	
Temperature resistance	-20°C to +80°C	

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

PCI Barraseal®

## 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 or - up to 10 mm - with PCI Nanocret FC (depending on required layer thickness).

Fill **spalled areas in potable 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 of PCI Barraseal

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 litres of water until free of lumps.

#### Application by trowel

Fill 25 kg of PCI Barraseal in a clean bucket and mix with approx. 4.9 litres 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 second and (up to a maximum thickness of 4 to 5 mm) third coat either by brush or trowel as long as the previous coat is still damp but has not yet cured.

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 thin layer of PCI Barraseal to the cured PCI Barraseal and apply a coarse layer of render in a reticular structure wet on wet. The render can be applied the next day.
- 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.
- A mortar of 1 part of PCI Barraseal and 1 part of silica sand no. 2 or silica sand (Pleinfelder V2), 0.3 - 0.8 mm, can be produced for small cavities in potable water areas if required. PCI Polyfix Plus (L) can be alternatively used. Further aggregates to PCI Barraseal are not allowed.
- It is expected that the waterproofing slurry will be damaged when exposed to water containing free, limeaggressive 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 for use 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.* 

## 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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In view of widely varying site conditions and fields of application of our products this technical data sheet is meant to provide general application guidelines only. This information is based on our present knowledge and experience. The customer is not released from the obligation to conduct careful testing of suitability and possible application for the intended use. The customer is obliged to contact the technical help-line for fields of application not expressly stated in the technical data sheet under "Fields of application". Use of the product beyond the fields of application as stated in the technical data sheet without previous consultation with PCI and possible resulting damages are in the sole responsibility of the customer. All descriptions, drawings, photographies, data, ratios, weights a.o. stated herein can be changed without advance notice and do not represent the condition of the product as stipulated by contract. It is the sole responsibility of the recipient of our products to observe possible proprietary rights as well as existing laws and provisions. The reference of trade names of other companies is no recommendation and does not exclude the use of products of similar type. Our information only describe the quality of our products and services and are no warranty. Liability is accepted for incomplete or incorrect particulars in our data sheets only in the event of intent or gross negligence, without prejudice to claims under product liability laws. All transactions are subject to our Terms of Sale and Supply.

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