

Flexible reactive waterproofing membrane, 2 components

PCI Barraseal® Turbo

for external basement walls, foundations
and concrete elements

PCI®

Für Bau-Profis



With official test certificate.

Fields of application

- For indoors, outdoors, walls and floors.
- For waterproofing basement walls, foundations and concrete structures to DIN 18533 class W1-E.
- As waterproofing against pressing water in accordance with the MDS test principles.
- As a damp proof course under walls to DIN 18533 class W4-E.
- As a flexible waterproofing of a foundation wall to DIN 18533 class W4-E.
- As surface / chloride protection to EN 1504-2 (table 5) for reinforced steel.
- As waterproofing of a reservoir to DIN 18535 up to a water column height of 10 metres.
- For gluing protection boards, drain boards and insulation boards.
- For crack-bridging waterproofing of old damaged basement waterproofing layers.


Features and benefits

- 2 component, flexible reactive waterproofing membrane for basement walls, foundations and concrete elements against soil moisture, standing seepage water and pressing water.
- Radon barrier, for a high protection level to your health.
- For multiple use: as bonding slurry, waterproofing of surfaces, foundation walls, horizontal surfaces, for gluing drainage boards and insulation boards and as surface protection for concrete elements.
- Meets all requirements as surface protection of class OS 5b in accordance with the guideline for reinforced steel.
- Easy to apply by roller, brush or trowel.
- Fast setting, for work under time pressure.
- Reliable bond, for use on mineral substrates and bituminous substrates.
- Water vapour permeable, resistant to UV, ageing and weather conditions.



Transition area of floor-to-ceiling window to foundation wall with PCI Barraseal Turbo and PCI Pecithene fleece tape.



	
0921,0767	
PCI Augsburg GmbH Piccardstraße 11 D-86159 Augsburg 15 DE0145/03	
PCI Barraseal Turbo (DE0145/03) EN 1504-2:2004	
Surface protection product/coating EN 1504-2 Principles 1.3/2.2/8.2	
Reaction to fire	Class E/E8
Cross cut	≤ GT2
Permeability to CO ₂	≤ 50 m
Water vapour permeability	Class 1
Capillary absorption and permeability to water	w < 0,1 kg/m ² /0,5
Thermal compatibility	≥ 0,8 N/mm ²
Crack bridging ability	Pass A2 (-20 °C) A3 (-15 °C) B2 (20 °C)
Adhesion strength by pull off test	≥ 0,8 N/mm ²
Artificial weathering	Pass
Dangerous substances	Comply with 5.3 (EN 1504-2)



A brand of



We create chemistry

Features and benefits

- Efficient: High dry layer thickness of approx. 90% of material quantity applied.
- Can be painted over and plastered over.
- Resistant to frost, frost/de-icing salt and permeable: protection from harmful salts such as chloride.

Technical data

Material

	Liquid component	Powder component
Material base	modified acrylate dispersion	special cement mortar with waterproofing PCI polymers
Shelf life	min. 12 months store dry and frost free, no permanent storage over +30°C Full pallets are non stackable.	min. 12 months
Packaging size	20 kg hobbock consisting of liquid component in 10 kg pail and powder component 2 x 5 kg PE lined bag 6 kg pail consisting of liquid component in 3 kg pail and powder component in 3 kg PE lined bag	

Application

Application as waterproofing of buildings officially controlled (in accordance with building standard list A part 2 ff. 2.49):

Required dry layer thickness for loads in accordance with DIN 18533

e.g. waterproofing against soil moisture and non-standing seepage water of floor slabs and walls (external basement walls) 2.0 mm

e.g. waterproofing against standing seepage water and pressing water up to a head of water of 3 m at a foundation depth of maximum 5 m 2.5 mm

e.g. waterproofing against water pressing from the inside (water reservoir without ceramic coating) up to a filling height of 10 m

Dry layer thickness as OS 5b product 2.0 mm

The material consumption is dependent on the peak-to-height valley and the type of substrate, processing and consistency. The given consumption values are reference values. Exact consumption values are to be determined at the object on site if necessary.

Consumption:

– at 2.0 mm dry layer thickness (approx. 2.3 mm wet layer thickness): 2.5 kg/m²
 – at 2.5 mm dry layer thickness (approx. 3.0 mm wet layer thickness): 3.2 kg/m²

Coverage of 20 kg PCI Barraseal Turbo:

– at 2.0 mm dry layer thickness: approx. 8 m²
 – at 2.5 mm dry layer thickness: approx. 6.2 m²

Processing temperature	+5°C to +25°C (substrate and ambient temperature)
Mixing ratio	10.0 kg liquid component : 10.0 kg powder component
Mixed mortar density	1.20 g/cm ³
Processing time*	45 minutes
Setting time*	
– rainproof after	approx. 4 hours
– backfill excavation pit after	approx. 6 hours
– insulation boards can be fixed after	approx. 3 hours
Temperature resistance	-20°C to +80°C
Capillary water absorption	<0.01 kg/m ² × h ^{0.5}

*at +23°C and 50% relative humidity

Test certificates

- Official test certificate in accordance with the MDS test principles (mineral waterproofing slurry)
Specification in accordance with EN 1504-2
All test certificates are available under www.pci-augsburg.de

Preparation of substrate

- Suitable substrates are concrete to EN 206-1 (minimum strength class C 20/25), plaster/render (minimum strength class CS III to EN 998-1), masonry produced of brick or sandlime brick with joints completely filled with cement mortar. Foamed slag bricks or hollow concrete blocks should be rendered with plaster/render at least strength class CS III to EN 998-1 before coating. The substrate must be structurally sound, mainly even and fine-pored in the surface. It must be free from honeycombs, gaping cracks and ridges, dust, water repellents, forming oil or other residues which could impair adhesion. Fill voids and honeycombs in concrete substrates with PCI Nanocret FC fibre reinforced concrete filler or PCI Nanocret R2 repair mortar. Level mortar gaps and irregularities in the brickwork with PCI Pericret.
- For the use as an OS 5b product, the substrate must be prepared by appropriate mechanical procedures, e.g. shotblasting, milling and subsequent shotblasting or blasting with solid blasting agents. Pores and cavities are to be sufficiently opened. Layers not able to bear weight and accumulated slurry must be removed. Voids and cavities must be closed in accordance with concrete repair regulations. Internal edges in containers, collecting pans and rooms are to be prepared as a coving using PCI Polyfix Plus L.
- Break edges, round coverings flush with a minimum radius of 5 cm. Prewet the cementitious substrate; it must be damp at the time of application, but not overwatered. We recommend to prime gauged render, aerated concrete or substrates with similar high absorbency and smooth-cast concrete surfaces with PCI Gisogrund 404 diluted 1 : 2 with water. Allow primer to dry before applying the waterproofing membrane.

Application procedure

- It is required to apply two coats of PCI Barraseal Turbo fully covering the substrate and acting as a waterproofing layer and OS5b product. **The finished coat must have the required minimum thickness over its entire area for the conditions to be subjected to** (see "Technical Data/Application").
- 1 Mixing both components**
 - a) Application by trowel**

Mixing: (It might be necessary to stir up the liquid component before mixing it). Fill the liquid component in an adequate, clean mixing bucket and add both packaging units of the powder component. Using a suitable paddle, e.g. from Collomix, mix all components for approx. 3 minutes until a homogeneous compound is produced. Leave to stand for approx. 1 minute and remix. Partial quantities of 50% of the material amount can be blended by only mixing one unit of the powder component with half of the liquid component. Half the amount of the liquid component corresponds to a filling height of the liquid unit of 9 cm.
 - b) Application by brush**

20 kg of PCI Barraseal Turbo can be diluted with up to 1 litre of clean water. Mix both components, add water and stir until a homogeneous consistency is produced.
 - 2 Preparation of substrate**

Prewet the prepared cementitious substrate. The substrate must still be damp, but not overwatered, when applying the waterproof coating PCI Barraseal Turbo.
 - 3 Application procedure**

Apply the first coat until the entire surface is saturated using e.g. a flat bristle brush or roller. Make sure that corners and rounded edges are thoroughly covered.
- 3a** PCI Pectape 250 waterproofing tape is used for connections, internal corners, transitions and culverts in areas in contact with the ground and to cover joints. Embed PCI Pectape 250 in the first waterproofing layer. The waterproofing tapes PCI Pectape Objekt and PCI Pectape 120 and the matching prefabricated pieces can be used for areas not in contact with the ground. Press tapes in the PCI Barraseal Turbo layer and cover them by applying a second waterproofing coat.
- 3b** Using a trowel, apply the second and possible third coat up to a total maximum thickness of 5 mm. The required layer thickness depends on the water load to be expected (see Technical Data).

Application procedure

3c Structure OS 5b

1. Substrate preparation
2. Scratch coat of adhesion-supporting layer with PCI Barraseal Turbo
3. Coating with PCI Barraseal Turbo
4. Coating with PCI Barraseal Turbo

4 Gluing drainage boards and insulation boards

Allow the waterproofing layer to thoroughly cure before gluing drainage boards and insulation boards. Apply the

dot-bead method or full-surface gluing.

5 As bonding slurry for mineral plaster/render systems

Apply a scratch coat with PCI Barraseal Turbo to the existing (bituminous) substrate acting as a bonding slurry. Using a notched trowel, apply a layer with PCI Barraseal Turbo to the cured scratch coat and - wet in wet - PCI Saniment HA covering the entire surface. When cured, this prepared

surface is suitable as a substrate for mineral plaster/render systems.

6 Protecting the coating

The excavation pit can be filled when the coating has thoroughly cured. Protect the waterproof coating by taking appropriate measures in accordance with DIN 18533.

**at 23°C and 50% humidity*

Application of PCI Barraseal® Turbo



Apply a contact layer using a roller.



Apply a contact layer using a brush or flat bristle brush.



A contact layer can also be applied as a scratch coat.



A minimum of 2 layers of PCI Barraseal Turbo must be applied. The material can be applied by notched trowel and smoothed for better coverage control.



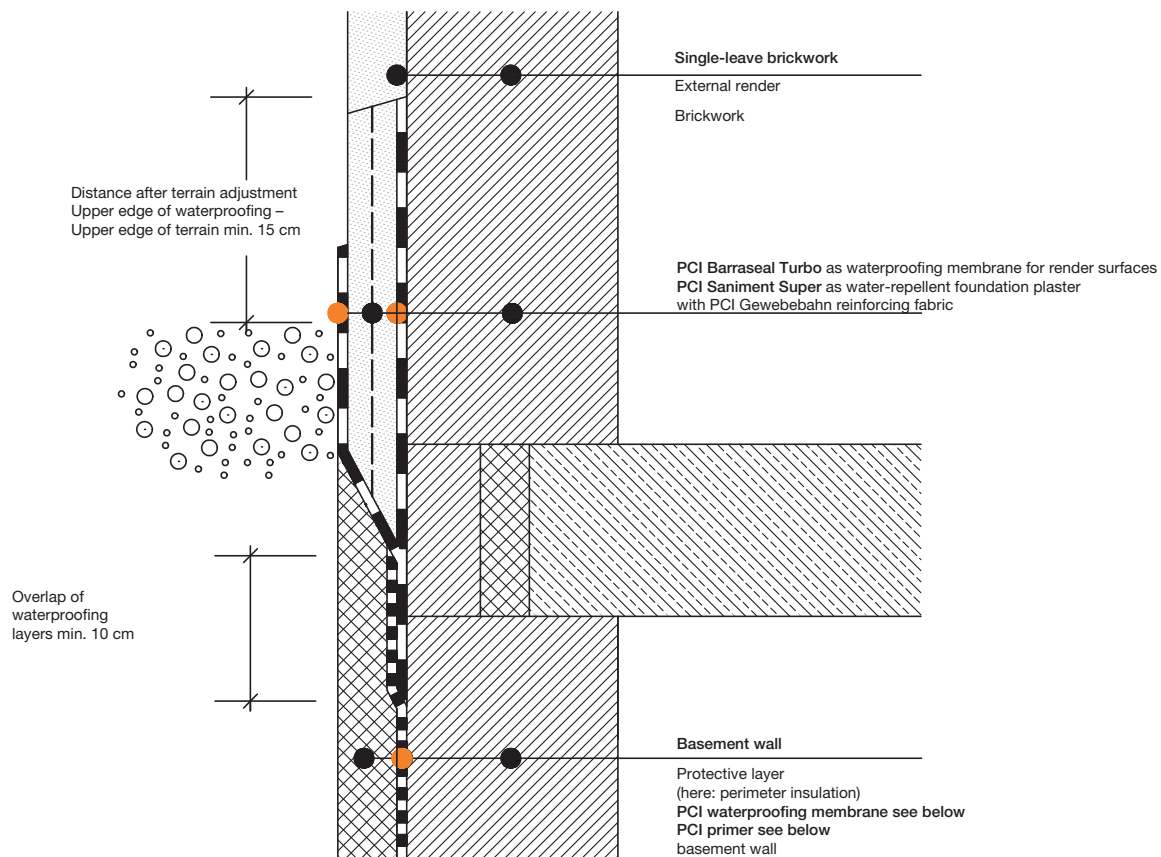
The last applied layer is smoothed to produce a smooth, fine textured surface.



PCI Barraseal Turbo is used to glue drainage boards and insulation boards to the substrate.

Waterproofing of buildings in accordance with DIN 18533

Base area: single-leave brickwork at basement wall



Waterproofing of building structures
 in contact with the ground in accordance
 with DIN 18533.

The primer is dependent on waterproofing
 material, substrate material and temperature.

Soil moisture, non-standing seepage water DIN 18533
 W1.1 and W1.2

- PCI Pecithene
- PCI Pecimor 1K, in 2 layers with a total dry layer thickness ≥ 3 mm
- PCI Pecimor 2K, in 2 layers with a total dry layer thickness ≥ 3 mm
- PCI Barraseal Turbo 2 mm dry layer thickness

Occasionally standing seepage water or pressing
 water up to 3 m DIN 18533 W2.1:

- PCI Pecimor 2K, in 2 layers with PCI Gewebbahn reinforcing fabric,
 total dry layer thickness ≥ 4 mm
- PCI Barraseal Turbo 2.5 mm dry layer thickness
 (but not officially controlled, to be regulated separately)

Primer PCI Pecimor F, diluted 1:5 with water

- Waterproofing with PCI Pecimor 1K/2K
- Substrate brickwork or plaster/render

Priming with PCI Pecimor F, diluted 1:1 with water

- Waterproofing with PCI Pecithene
- Substrate temperature from $+10^{\circ}\text{C}$ to $+30^{\circ}\text{C}$

Priming with PCI Pecithene-Wintergrundierung

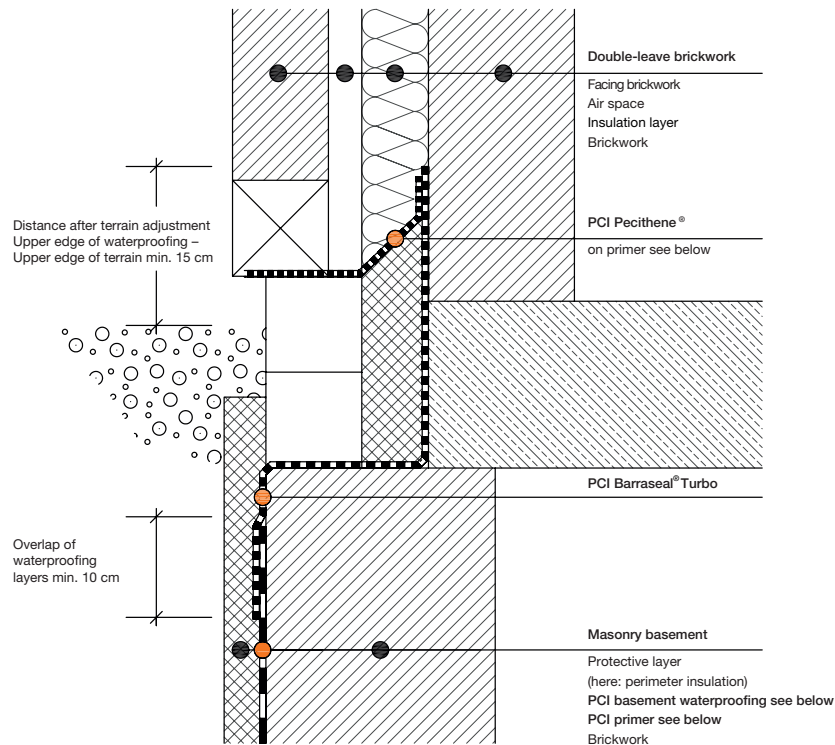
- Waterproofing with PCI Pecithene
- Substrate temperature from -5°C to $+10^{\circ}\text{C}$

Without primer

- Waterproofing with PCI Barraseal Turbo

Waterproofing of buildings in accordance with DIN 18533

Base area: double-leave brickwork at basement wall



Waterproofing of building structures
 in contact with the ground in accordance
 with DIN 18533.

Soil moisture, non-standing seepage water DIN 18533 W1.1 and W1.2:

- PCI Pecithene
- PCI Pecimor 1K, in 2 layers with a total dry layer thickness ≥ 3 mm
- PCI Pecimor 2K, in 2 layers with a total dry layer thickness ≥ 3 mm
- PCI Barraseal Turbo 2 mm dry layer thickness

Occasionally standing seepage water or pressing water up to 3 m
 DIN 18533 W2.1:

- PCI Pecimor 2K, in 2 layers with PCI Gewebefabrik reinforcing fabric, total dry layer thickness ≥ 4 mm
- PCI Barraseal Turbo 2.5 mm dry layer thickness
 (but not officially controlled, to be regulated separately)

The primer is dependent on waterproofing
 material, substrate material and temperature.

Primer PCI Pecimor F, diluted 1 : 5 with water

- Waterproofing with PCI Pecimor 1K/2K
- Substrate brickwork or plaster/render

Priming with PCI Pecimor F, diluted 1:1 with water

- Waterproofing with PCI Pecithene
- Substrate temperature from +10°C to +30°C

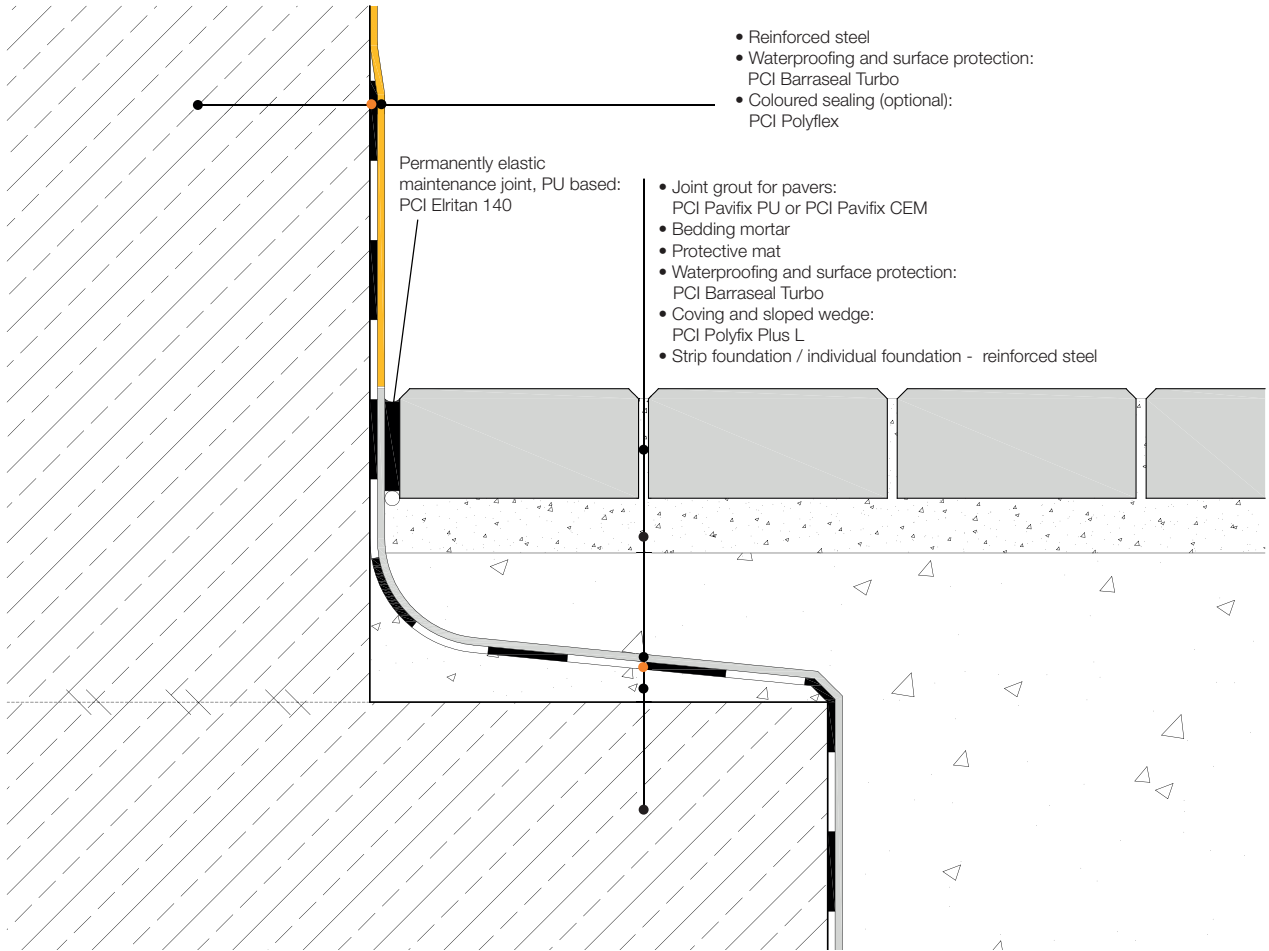
Priming with PCI Pecithene-Wintergrundierung

- Waterproofing with PCI Pecithene
- Substrate temperature from -5°C to +10°C

Without primer

- Waterproofing with PCI Barraseal Turbo

Base area: surface protection, chloride protection and waterproofing on surfaces from reinforced steel



Please note

- Full pallets are non-stackable!
- Point loads and linear loads on the waterproofing layer must be prevented and are not allowed.
- PCI Barraseal Turbo must always be applied to the building side exposed to water.
- Do not apply PCI Barraseal Turbo at ambient and substrate temperatures below +5°C and above +25°C. Avoid exposure to hot weather and draught.
- Mix only as much PCI Barraseal Turbo as can be applied within approx. 45 minutes.
- Never add water and/or liquid component or fresh powder component to reconstitute a PCI Barraseal Turbo mix which has already begun to set.
- Additives to PCI Barraseal Turbo are not allowed.
- Irregular substrates must be levelled before waterproofing:
< 5 mm: PCI Barraseal Turbo
> 5 mm: PCI Nanocret R2 / PCI Nanocret FC
- Connecting profiles and angle profiles from metal must be doweled on the substrate and waterproofed with PCI Barraseal Turbo. This is to prevent the PCI Barraseal Turbo layer from separating from the metal profile due to varying thermal expansion.
- In case of transitions on zinc and/or zinc titanium, the following preparation is recommended before coating with PCI Barraseal Turbo:
Prime the metallic substrate twice with PCI Elastoprimer 220. Sprinkle the fresh second layer with fire-dried silica sand (grain size 0.1 - 0.4 mm). Allow primer to harden.
- Do not backfill excavation pits with rubble, coarse stones or debris. The waterproofing layer must not be damaged (protect by placing e.g. drainage boards in front of the excavation pit). PCI Barraseal Turbo must have thoroughly cured before backfilling the excavation pit.
- Clean tools with water immediately after use; the cured product can only be removed by mechanical scraping.
- The guideline for water-impermeable concrete must be followed when waterproofing buildings with water-impermeable concrete around butt joints and construction joints of prefabricated elements.
- We recommend to use PCI Seccoral 2K Rapid for the bonded waterproofing with tiles and flagstones.
- Waterproofing structural elements in contact with the ground with PCI Barraseal Turbo corresponds to the guidelines of Deutsche Bauchemie (German construction chemical industry), "Richtlinie für die Planung und Ausführung von Abdichtungen von Bauteilen mit mineralischen Dichtungsschlämmen", also the guideline "Fassadensockelputz / Aussenanlagen" issued by Berufs- und Industriefachverbände, the leaflet "Abdichten von erdberührtem Mauerwerk" issued by Deutsche Gesellschaft für Mauerwerksbau and furthermore the relevant WTA leaflets. The above mentioned guidelines and leaflets must be followed.
- The application of PCI Barraseal Turbo to waterproof a building exposed to the ground is controlled and approved in DIN 18533 as waterproofing in the water exposure classes W1-E and W4-E. An application to waterproof a building in the water exposure classes W2-E and W3-E must be agreed with the client in writing.
- Suitable tools are available from e.g. Collomix GmbH
Horchstraße 2
85080 Gaimersheim/Germany
www.collomix.de
- Store dry and frost free, 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

■ Powder component

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.

■ Liquid component

Treated goods in accordance with regulation (EU) No 528/2012:
Contains biocide (in-can preservative):
1,2-BENZISOTHIAZOL-3(2H)-ONE,
2-METHYL-2H-ISOTHIAZOL-3-ONE.
Mixture of: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE and 2-METHYL-2H-ISOTHIAZOL-3-ONE (3:1).

May cause an allergic reaction.
Keep out of reach of children. Wear protective gloves. Protect eyes where there is risk from splashing. In case of contact with eyes thoroughly rinse with water. If the eye irritation does not ease off within a few minutes seek prompt medical advice. Keep classification label at hand.

Giscode ZP1

For both components:

Water hazard class: 1 (self-rating)

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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zertifiziertes Qualitäts-
managementsystem

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, photographs, 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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German edition July 2017; the latest edition is always available on the Internet under www.pci-augsburg.de