



PCI
Für Bau-Profis



SIMPLE WATERPROOFING

**HARMONIZED SOLUTIONS FOR
BUILDING WATERPROOFING AND REFURBISHMENT**

PCI-WATERPROOFING SOLUTIONS

CONTENTS

Waterproofing systems

PCI Pecimor system – building waterproofing PMBC	6
PCI Barraseal Turbo system – building waterproofing MDS/FPD	8
PCI Pecithene system – building waterproofing KSK	10
PCI Barra system – interior waterproofing/masonry refurbishment	12



Building waterproofing PMBC
PCI Pecimor system



Building waterproofing MDS/FPD
PCI Barraseal Turbo system



Building waterproofing KSK
PCI Pecithene system



Masonry refurbishment
PCI Barra system



System building waterproofing
Double-leaf brickwork system

Substrate preparation and detail solutions

Substrate preparation	14
Waterproofing/concave moldings and footings	15
Waterproofing with double-leaf brickwork	16
Waterproofing with full-length windows	18
Other detail solutions	20

Water exposure classes in accordance with DIN 18533

Product overview	22
------------------	----

Product overview	24
------------------	----

PCI PRODUCT RECOMMENDATIONS

	PCI Pecimor	PCI Barraseal Turbo	PCI Pecithene	PCI Barra
Soil moisture, non-pressing water (W1-E)	Page 6	Page 8	Page 10	
Pressing water (W2.1-E / W3-E)	Page 6	Page 8		
Plinth waterproofing (W4-E)	Page 6	Page 8	Page 10	
Waterproofing of double-leaf brickwork				Page 16
Interior waterproofing/refurbishment of masonry				Page 12

Reliable waterproofing in accordance with the standards for building elements in contact with the soil

THE RIGHT BASIS

To prevent damage to buildings, especially to building elements in contact with the soil, waterproofing which is durably reliable must be provided. This calls for proactive, detailed planning and expert installation work. The waterproofing products used are a key factor in determining the quality of buildings.

Only highquality tested product systems specially developed to meet the requirements for protecting buildings can guarantee that a building is protected against damage caused by moisture.

We make it as easy as possible for you to choose the appropriate waterproofing product. PCI focuses on holistic solutions – system solutions. The objective is not to have as wide a range as possible but to provide our customers with comprehensive support in the form of simple solutions which are durably reliable:

With perfectly harmonized PCI systems for the waterproofing of buildings, and a range that is as slim as possible and as wide as necessary.



WHY IS THE WATERPROOFING OF BUILDINGS SO IMPORTANT?

Cellars are often refurbished to gain additional living space and are used for hobbies, for parties and as offices. A cellar can only be a living space where people feel comfortable if the walls are permanently dry – for a pleasant room climate.

This means that the cellar must be protected against moisture from the surrounding soil. The most effective approach is to provide waterproofing where the wall comes into contact with water, i.e. on the exterior.

Waterproofing solutions from PCI – the benefits at a glance:

- A slim product range for quick and easy selection
- 5 perfectly harmonized waterproofing systems for new and old buildings
- A wide range of applications
- Easy and convenient to use
- Tested product quality
- Systems meet the requirements of DIN 18533
- Competent specialist advice and technical service via phone/chat or on the construction site
- Decades of experience and comprehensive development know-how
- Nationwide availability through specialist dealerships
- Several awards from users and planners



PCI waterproofing in accordance with standards – yesterday, today and tomorrow

All PCI products for waterproofing elements in contact with the soil are in accordance with the requirements of the standard DIN 18533. This means that you can work with reliable products with which you are familiar and which have been tested as a system at the same time as meeting the requirements of the standard.



TRIED AND TESTED, RELIABLE AND FIRST-CLASS

The PCI Pecimor system, based on tried and tested thick bituminous coating technology (PMBC) ensures the waterproofing of building elements exposed to the soil in accordance with the applicable standard. Craftspeople, architects and engineers have opted for universal, reliable thick bituminous coatings from PCI for many years. Both PCI Pecimor 1K and PCI Pecimor 2K were developed for a wide range of applications in order to allow reliable planning. In addition, both products ensure extremely reliable application. They have been tested by independent institutes and resist attack by soft rainwater.

Benefits of PCI Pecimor 1K and 2K at a glance:

- Easy product selection – only two PCI thick bituminous coatings designed for extremely convenient application cover the entire range of waterproofing with polymer-modified thick bituminous coatings
- Easy, effortless application – thanks to the homogeneous polystyrene filler of the two products, the material almost applies itself
- High area yield – the good non-sag properties allow the products to be applied evenly to ensure the thicknesses required by the standard
- Reliable coverage – the surface is already sealed after the first step as the first coat is already free from defects and watertight

Waterproofing in accordance with the standard using PCI Pecimor

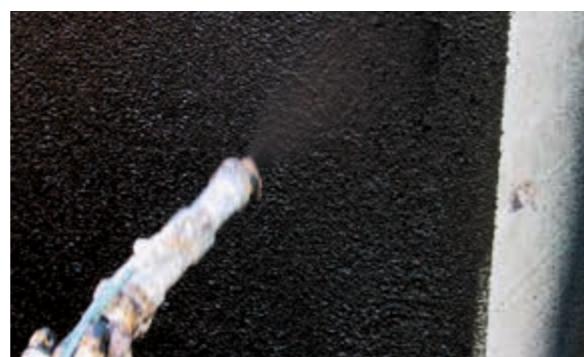
The designations of thick bituminous coatings have changed with DIN 18533, Part 3 (Waterproofing with liquid-applied waterproofing materials). The former KMB materials (polymer-modified thick bituminous coatings) are now referred to as PMBC (Polymer-Modified Bituminous Coating). The areas of application remain unchanged.



Easy, effortless application



High area yield



Can also be sprayed on

PCI Pecimor system



AREAS OF APPLICATION OF PMBC IN ACCORDANCE WITH DIN 18533-3

	PCI Pecimor 1K	PCI Pecimor 2K	Minimum dry film thickness
W1-E	■	■	3 mm
W2.1-E	-	■	4 mm + reinforcement fabric
W3-E	-	■	4 mm + reinforcement fabric
W4-E under walls	-	-	-
W4-E plinth waterproofing	■	■	3 mm

Mineral waterproofing slurry MDS / FPD*

FLEXIBLE AND UNIVERSAL

The flexible reactive waterproofing membranes PCI Barraseal Turbo and PCI Barraseal Turbo 1K are a genuine alternative to bituminous products for use on building elements in contact with the soil. The products can be used as a flexible mineral waterproofing slurry or flexible polymer-modified bituminous coating, are easy to apply and fast-setting. Especially for refurbishment work and on plinths, the PCI reactive waterproofing membranes come into their own as they will even adhere to old bituminous coatings.

Benefits of PCI Barraseal Turbo and PCI Barraseal Turbo 1K at a glance:

- Maximum reliable adhesion – also to old bituminous coatings
- Fast-setting – rainproof after approx. 4 hours; construction pit can be backfilled after approx. 6 hours
- For multiple applications – for waterproofing walls and plinths, horizontal damp-proof courses and the bonding of insulation boards
- Radon-tight
- Waterproofing against pressing water – in accordance with requirements for mineral waterproofing slurries, flexible polymer-modified thick coating and transition to concrete components with high water penetration resistance (MDS, FPD and FBB)

Waterproofing in accordance with the standard using PCI Barraseal Turbo

Following the introduction of the current waterproofing standard DIN 18533, Part 3 (Waterproofing with liquid-applied waterproofing materials), flexible mineral waterproofing slurries are becoming increasingly important. For non-pressing water, flexible mineral waterproofing slurries are covered by the standard DIN 18533. They are also recommended for waterproofing under walls and are required in certain applications. In addition to the standard, further water exposures and applications can be separately agreed with the project owner via the official test certificate for mineral waterproofing slurries, flexible polymer-modified thick coating and transition to concrete components with high water penetration resistance.



Ideal for waterproofing walls in new-built and refurbishment projects



Also suitable for waterproofing plinths and render



Easy to use: can be applied by trowel, brush, roller or spray

PCI Barraseal Turbo system



AREAS OF APPLICATION MDS / FPD IN ACCORDANCE WITH DIN 18533-3

	PCI Barraseal Turbo / PCI Barraseal Turbo 1K	Dry film thickness as MDS	Dry film thickness as FPD*
W1-E	■	2 mm	3 mm
W2.1-E	■*	2 mm (with waterproofing tape)	4 mm (without waterproofing tape)
W3-E	■*	2 mm	3 mm
W4-E under walls	■	2 mm	2 mm
W4-E plinth waterproofing	■	2 mm	2 mm

Cold-applied self-adhesive bitumen membrane

NOTHING STICKS BETTER

The PCI Pecithene system offers highly advanced waterproofing based on cold-applied, self-adhesive products. The key product in the system is the PCI Pecithene 1000 KSK* waterproofing membrane. It consists of a two-layer, tearresistant Valéron special foil and a highly adhesive bitumen rubber waterproofing compound. This way, outside basement walls are durably protected against moisture. The waterproofing membrane is also suitable for L-shaped and Z-shaped waterproofing layers in double-leaf brickwork (see page 16 - 17).

Advantages of PCI Pecithene 1000 at a glance:

- High adhesive strength – thanks to special adhesive compound for the durable protection of waterproofed surfaces
- Outstanding shaping properties – clean application to corners and irregularities without creasing. Even at temperatures as low as -5 °C, external basement walls can be reliably waterproofed using PCI Pecithene 1000. The material remains supple and flexible
- Outstanding rapid solution – defined coating thickness, rapid construction progress, no drying times – waterproofing is up to 50% faster than with thick bituminous coatings. This means that the cellar is protected against water and heavy rainfall and that the construction pit can be filled in immediately
- Radon-tight – for the long-term use of cellars without any problems – confirmed by independent test certificate

Waterproofing in accordance with the standard using PCI Pecithene 1000

Cold-applied self-adhesive membranes were already included in the previous standard and are also covered by the current DIN 18533, Part 2 (Waterproofing with waterproofing materials in sheet form). Cold-applied self-adhesive membranes are approved for use with soil moisture, non-pressing water as well as for waterproofing plinths and under walls without soil pressure acting from the side. The sheets must have an overlap of at least 8 cm and the edges must be pressed firmly into place.



High adhesive strength



Outstanding shaping properties



Outstanding rapid solution

PCI Pecithene system



Edges and connections of surface waterproofing
Sealing tape B 100/B 150
PCI Pecithene Fix
Self-adhesive butyl sealing tape with nonwoven plastic backing on one side



Surface waterproofing (W1-E)
Cold-applied self-adhesive membrane
PCI Pecithene 1000
for waterproofing cellars, wet rooms, balconies down to -5 °C



Priming
Primer
PCI Pecithene Primer
for cold-applied self-adhesive membranes from +5 to +25 °C
or
Special primer
PCI Pecithene Primer W
at low temperatures down to -5 °C



Waterproofing inside and outside corners
Inside corner
PCI Pecithene I 90°
for waterproofing foundation corners
Outside corner
PCI Pecithene A 90°
for waterproofing foundation corners



Waterproofing under walls (W4-E) and waterproofing of plinths (W4-E)

Flexible two-component reactive waterproofing membrane
PCI Barraseal Turbo
for external basement walls, foundations and concrete elements

Flexible reactive waterproofing membrane
PCI Barraseal Turbo 1K
for external basement walls, foundations and concrete elements

For bonding insulation boards
Bitumen adhesive for insulation boards
PCI Pecimor DK
for external basement walls and foundations

Waterproofing footings and edges
Cold-applied self-adhesive waterproofing strips
PCI Pecithene 150 / PCI Pecithene 300
for waterproofing building elements down to -5 °C

AREAS OF APPLICATION KSK* IN ACCORDANCE WITH DIN 18533-2

	PCI Pecithene 1000	Notes	Layer thickness
W1-E	■	-	One layer (one sheet thickness)
W2.1-E	-	-	-
W3-E	-	-	-
W4-E under walls	■	Without soil pressure from side	One layer (one sheet thickness)
W4-E plinth waterproofing	■	-	One layer (one sheet thickness)

Interior waterproofing / refurbishment of masonry

THE INTERIOR WATER-PROOFING SOLUTION

The PCI Barra system consists of products applied to the interior surfaces of basement walls, providing a safe barrier against water penetration. Protection is provided by injecting special creams or liquids into the masonry. The PCI Saniment products that also form part of the system prevent efflorescence and shape the surface. This way, a basement room can be prepared for use as a living space in only a few steps.

Reliable benefits of PCI Barra:

- Slim range – for easy use
- Easy-to-use products – for reliable refurbishment of masonry
- PCI Barra Creme – the horizontal barrier for moisture saturation levels up to 95 %; reduces the need for additional action
- PCI Barra Gisol – the reliable classical horizontal damp course for injection without pressure
- PCI Barra Inject – for filling cavities and closing drill holes
- PCI Saniment 2 in 1 – combined repair mortar and fairing coat

Waterproofing in accordance with the standard using PCI Barra

All the products in the PCI Barra system are tested and certified in accordance with WTA. This provides security with respect to the functioning and durability of waterproofing when refurbishing old basement walls. For exterior waterproofing on foundations, flexible mineral waterproofing slurries in accordance with DIN 18533 are recommended.



Injection of a horizontal damp course using PCI Barra Creme



Application of a damp course to provide protection against rising damp using PCI Barra Gisol



Application of PCI Saniment 2 in 1 as a combined repair mortar and fairing coat

PCI Barra system



AREAS OF APPLICATION

	WTA interior waterproofing	Plinth waterproofing in accordance with DIN 18533	
WTA 4-10	PCI Barra Creme PCI Barra Gisol	-	-
WTA 2-9-04/D	PCI Saniment 2 in 1 PCI Barraseal	-	-
W3-E	■	PCI Barraseal Turbo PCI Barraseal Turbo 1K	Layer thickness 2 mm
W4-E under walls	■	PCI Barraseal Turbo PCI Barraseal Turbo 1K	Layer thickness 2 mm

Substrate preparation

THE SUBSTRATE IS KEY



PRE-TREATMENT REQUIRED DEPENDING ON STRUCTURE / CONDITION

Condition of substrate	Pre-treatment
Dusty, dirty	Sweep off, remove dust
With mortar burrs	Remove burrs
With frost or ice	Thaw and allow to dry
Inside and outside edges	Outside edges must be beveled, inside edges should be rounded

Condition of surface	Pre-treatment
Width > 5 mm (e.g. mortar accumulations, open joints)	Rendering (with thin mortar or leveling compound) -> e.g. PCI Nanocret R2
Width ≤ 5 mm and surface profiling	Seal and level with waterproofing slurries or a scratch coat, e.g. with PCI Barraseal or PCI Nanocret R2
Mortar contamination (e.g. render)	Inspect to ensure that the mortar is sufficiently strong and to identify any cavities. Sweep off render that releases sand using a hard brush. Remove any brittle render and replace if necessary
Old black coatings of coal tar pitch	Remove without residue
Old bituminous coatings	Clean and roughen mechanically and then remove dust, e.g. using PCI Barraseal Turbo or PCI Barraseal Turbo 1K

Waterproofing/concave moldings

PROPER PREPARATION OF TRANSITIONS

Sloping wedges and waterproofing / concave moldings

Before applying a waterproofing product, it may be necessary to install sloping wedges or waterproofing/concave moldings. In accordance with DIN 18533, waterproof mortar is especially well-suited for waterproofing/concave moldings. PCI Polyfix plus L is waterproof, sulphate-resistant and fastsetting. As a result, the cementitious leveling layer can be installed immediately before the waterproofing product is applied, without any waiting time.

- Sloping wedges with thicknesses between 2 and 50 mm can be constructed using non-sagging PCI Polyfix plus L
- Waterproof/concave moldings using PCI Polyfix plus L can be easily shaped and smoothed using a trowel or brush



Installation of a waterproof concave molding with PCI Polyfix plus L



Moist masonry in a cellar



Intermediate waterproofing layer with PCI Barraseal

Footings with PCI Barraseal rigid slurry

During construction of a building skeleton, masonry on the floor slab or at the footing of the waterproofing is often saturated with moisture. In order to ensure secure bonding to building elements in contact with the soil, the waterproofing product must be allowed to dry thoroughly. If the masonry is already saturated with moisture, an intermediate layer of PCI Barraseal must be applied. When this has cured, bituminous or cold-applied self-adhesive membranes may be safely applied.

- Can be applied by brush, trowel and spray gun; easy to apply to any substrate
- Will also dry on moist substrates
- Provides a durable seal on the side exposed to and away from water
- Sulphate-resistant

Waterproofing of double-leaf brickwork

RELIABLE WATERPROOFING IN ACCORDANCE WITH STANDARDS

Reliable basic waterproofing

In the case of double-leaf brickwork, there are two main types of waterproofing to be considered, the basic waterproofing of the floor slab and the Z-shaped and L-shaped waterproofing inside the brickwork. The purpose of the basic waterproofing is to protect the plinth against moisture in accordance with DIN 18533 W4-E. Either the bitumen-free flexible reactive waterproofing slurry PCI Barraseal Turbo / PCI Barraseal Turbo 1K or the cold-applied self-adhesive membrane PCI Pecithene 1000 may be used for this purpose.

Easy Z-shaped and L-shaped waterproofing

The subsequent Z-shaped and L-shaped waterproofing of the double-leaf brickwork provides protection against moisture inside the brickwork and in the structure behind the waterproofing. Z-shaped waterproofing applied between the two leaves of the brickwork ensures that any condensation is effectively and easily removed via the outer leaf. For this purpose, the waterproofing must bridge the gap between the two leaves, which is why sheet products such as PCI Pecithene 1000 are always used for this purpose. Thanks to its high flexibility and good adhesive properties, it is very easy to apply waterproofing of this type using PCI Pecithene 1000.

Waterproofing double-leaf brickwork in accordance with the standard

Basic waterproofing may be applied using cold-applied self-adhesive membranes or flexible mineral waterproofing slurries. Both types of product are approved for soil moisture and non-pressing water in plinth areas. In contrast, Z-shaped and L-shaped waterproofing can only be applied using cold-applied self-adhesive membranes. However, this type of waterproofing is not included in DIN 18533.



Basic waterproofing with PCI Barraseal Turbo or PCI Barraseal Turbo 1K



Basic waterproofing with PCI Pecithene 1000 – partially waterproofed insulation element



Window detail

Advantages of basic waterproofing with PCI Barraseal Turbo / PCI Barraseal Turbo 1K at a glance:

- Reliable waterproofing – even on irregular substrates
- Easy-to-apply slurry – for corners, edges and penetration points
- Flexible use – for waterproofing under outer and inner leaves
- Suitable for plinth waterproofing – can be applied seamlessly above ground level, left uncovered, painted over or covered with render

Advantages of basic waterproofing with PCI Pecithene 1000 at a glance:

- Reliable fast solution – the building element is immediately protected against heavy rainfall
- Easy to process – the back of the waterproofing membrane is self-adhesive
- No need to use different materials – one product can be used both for the basic waterproofing and for Z-shaped and L-shaped waterproofing
- No drying time – work can start immediately with the construction of the outer leaf on the PCI Pecithene 1000 membrane



WATERPROOFING WITH DOUBLE-LEAF BRICKWORK SYSTEM



AREAS OF APPLICATION OF KSK / MDS* IN ACCORDANCE WITH DIN 18533

	PCI Pecithene 1000	PCI Barraseal Turbo / PCI Barraseal Turbo 1K – Layer thickness
W1-E	■	■ 2 mm
W4-E under walls (Without soil pressure from side)	■	■ 2 mm
W4-E plinth waterproofing	■	■ 2 mm

* Cold-applied self-adhesive bitumen waterproofing membrane / Flexible mineral sealing slurry

Safe integration of elements

RELIABLE WATER-PROOFING OF FULL-LENGTH WINDOWS

At least at its base, a full-length window element interrupts the waterproofing of the building. It is therefore important to provide reliable waterproofing around full-length window elements. This calls for materials which effectively bond to the elements on the one hand and have flexible properties on the other hand. In addition, materials which are ultraviolet resistant or can be covered by mineral coatings must be used in the visible area of the plinth. The flexible reactive waterproofing membrane PCI Barraseal Turbo or PCI Barraseal Turbo 1K meets all these requirements.

Advantages of PCI Barraseal Turbo and PCI Barraseal Turbo 1K:

- Proper connection to the plinth zone, in accordance with DIN requirements
- Good adhesion, reliable application to large surfaces as well as to corners and niches
- Ultraviolet resistant, homogenous grey color; PCI Barraseal Turbo does not need to be coated or painted
- The crack-bridging properties of the flexible two-component reactive waterproofing slurry ensure extremely reliable use
- Good adhesion; bonds durably to waterproofing tapes and black coatings

In order to bridge gaps and to provide additional protection

against fatigue caused by thermal expansion and contraction, waterproofing tapes must be used for the connection of full-length door and window elements. The waterproofing tapes are intended to prevent moisture from running down between the waterproofing and the window element.

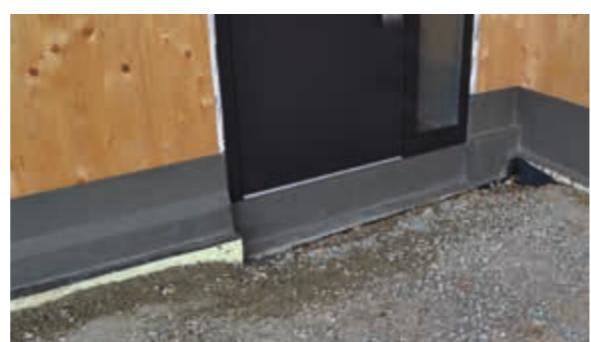
For the connection of the tapes, the window must be sanded and cleaned. The self adhesive tape PCI Pecithene Fix is then bonded to the prepared window element and covered with PCI Barraseal Turbo or PCI Barraseal Turbo 1K. As an alternative, the waterproofing tape PCI Pecitape 250 or PCI Pecitape PB may be bonded directly to the prepared window element using PCI Barraseal Turbo or PCI Barraseal Turbo 1K flexible reactive waterproofing slurry.



PCI Barraseal Turbo or PCI Barraseal Turbo 1K is suitable for connection to window elements and for use in foundation waterproofing



Connection to window element using PCI Pecithene Fix fixing tape



Transitions between PCI Barraseal Turbo or PCI Barraseal Turbo 1K, waterproofing tape and window element



Note

Connection to full-length windows represent a special design which must be separately agreed with the owner or architect.

Double-leaf brickwork

Before the window element is installed, Styrodur strips must be positioned on the basic waterproofing (see pages 16 to 17) to the left and right of the window opening. The strips should be positioned as near as possible to the window opening by agreement with the window contractor. After installing the window, make sure that the waterproofing can be connected to the window element. In view of its adhesion and its bridging properties, the cold-applied self-adhesive waterproofing membrane PCI Pecithene 1000 is outstandingly well-suited for use in these applications.

If we take a look at the transition from the interior, it becomes clear that waterproofing is needed between the insulating element and the floor. Three different methods may be used here:

Variant 1: Full coverage with PCI Pecithene 1000. The cold-applied self-adhesive membrane bonds both to the insulating element and to the sheet which has already been applied to the floor slab.

Variant 2: Waterproofing with PCI Pecithene Fix self-adhesive tape.

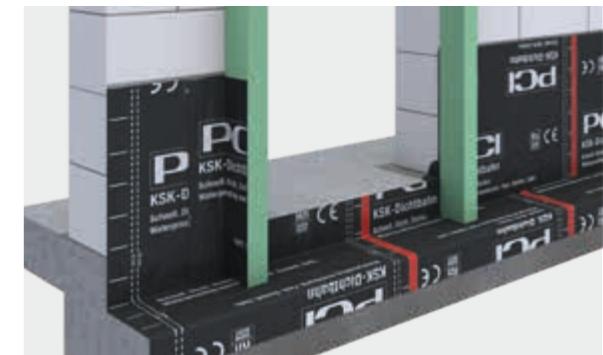
Variant 3: Waterproofing with PCI Pecitape 250 or PCI Pecitape PB and PCI Barraseal Turbo/PCI Barraseal Turbo 1K.

Ready-to-use and versatile – PCI Barraseal Ready

PCI Barraseal Ready is a ready-to-use, flexible, single-component waterproofing compound for the simple and reliable waterproofing of detail connections in accordance with DIN 18533 (abP FLK).

In a system with PCI Barraseal Ready Vlies, connections of floor-to-ceiling window and door elements can be bonded safely to the surrounding structure after installation. Thanks to the ready-to-use formulation, it is not necessary to mix small quantities or to dispose of residues.

- Reliable adhesion and very good crack bridging properties
- Easy-to-use and fast-setting
- Not classed as a hazardous substance



Waterproofing of insulating element from the exterior



Insulating element protected against moisture from the back



Step 1



Step 2



Step 3

Reliable waterproofing of details

SEAMLESS PROTECTION...

Structural joints in buildings:

Waterproofing with liquid-applied polymer-modified thick bituminous coatings and mineral waterproofing slurries

Apply the first layer of PCI Pecimor 1K/2K or PCI Barraseal Turbo/PCI Barraseal Turbo 1K to the primed surfaces. For secure waterproofing of the structural joints, PCI Pecitape 250 waterproofing tape must be inserted into the layer before it dries. At least 10 cm of the tape on each side of the joint must be covered by the waterproofing layer. Then apply a second layer of waterproofing to the edges of the tape and the first layer to obtain the layer thickness required by DIN 18533.

Waterproofing with cold-applied self-adhesive membranes

Apply the PCI Pecithene 1000 sheets up to the joint and press the edges firmly into place. Apply a 30 cm

wide strip of PCI Pecithene 1000 in a centered position over the joint. To ensure reliable waterproofing of the joint, this area must be covered with a second layer of PCI Pecithene 1000.



Waterproofing of structural joints with KSK-Bahn PCI Pecithene 1000



Note

These solutions assume that the structural joint is positioned on a continuous floor slab. Joints without a continuous floor slab represent a special solution and require appropriate design work.



Transition to a multiple-service entry point waterproofed using PCI Barraseal Turbo or PCI Barraseal Turbo 1K



Installation of PCI Pecimor 2K on a flange

Penetrations through waterproofing

The waterproofing of a building can only be as strong as its weakest joint. It is therefore especially important to ensure proper transitions to a flange at points where the waterproofing is penetrated. During refurbishment work on old buildings, flanges for transitions are rarely available. Special attention to the effective waterproofing of penetration points is required in the case of new buildings. Many local authorities have bylaws with requirements of this type. The additional cost of designing and installing such transitions is insignificant compared with the possible cost of damage if these requirements are not observed.

If modern flanges such as those produced by Hauff are used, PCI Pecimor 1K/2K, PCI Barraseal Turbo/PCI Barraseal Turbo 1K as well as PCI Pecithene 1000 can be effectively connected. For this purpose, the flange must be slightly roughened and then cleaned. The waterproofing materials can then be applied to the flange direct without any further priming. For liquid-applied materials, PCI Gewebebahn reinforcement fabric can be used as reinforcing insert to improve crack bridging.

...DOWN TO THE LAST DETAIL

Building foundations:

Plinth areas and ground level

To provide protection against spray water around ground level at the transition to the cellar waterproofing, we recommend waterproofing with PCI Barraseal Turbo or PCI Barraseal Turbo 1K flexible reactive waterproofing slurry. The waterproofing should cover an area of about 30 cm above and below ground level. This area can subsequently be painted over or covered with render.



Waterproofing applied using PCI Barraseal Turbo or PCI Barraseal Turbo 1K around ground level may be left exposed, painted over or covered with render



PCI Pecimor DK for bonding insulation boards into place on thick bituminous coatings and cold-applied self-adhesive membranes

Bonding of insulation boards:

PCI Pecimor DK guarantees secure bonding of insulation boards. The advantage is that the material absorbs all water and dries rapidly. While conventional thick bituminous coatings require long drying periods or never dry completely, the construction pit can already be filled after 6 hours with this fast-setting insulation board adhesive.

Insulating boards can also be bonded without bituminous materials using the flexible reactive waterproofing membrane PCI Barraseal Turbo or PCI Barraseal Turbo 1K. This all-rounder is suitable for waterproofing surfaces and foundation walls, laying a horizontal damp-proof course and bonding insulating boards.



Note

Insulation boards must not be bonded into place until the waterproofing has dried thoroughly. In the case of pressing water (W2.1-E), insulation boards must be bonded over their entire surface.

Classification in accordance with the standard

WATER EXPOSURE CLASSES (DIN 18533)

OLD AND CURRENT REQUIREMENTS FOR THE WATERPROOFING OF BUILDING ELEMENTS IN CONTACT WITH THE SOIL (DIN 18533):

Valid version of Ö-Norm B 3692 – Planning and implementation of waterproofing for buildings.

Previous exposure classes in accordance with DIN 18195 or areas covered by construction regulations		Exposure classes in accordance with DIN 18533 (waterproofing of building elements in contact with the soil)		
Standards	Areas of application	Water exposure class	Description	PCI products in accordance with standard
DIN 18195-4	Soil moisture	W1.1-E 	Non-standing: Soil moisture and non-pressing water on walls and floor slabs in contact with the soil with a strongly permeable soil	<ul style="list-style-type: none"> PCI Pecimor 1K PCI Pecimor 2K PCI Pecithene 1000 PCI Barraseal Turbo PCI Barraseal Turbo 1K
DIN 18195-4	Non-standing seepage water	W1.2-E 	Non-standing with drainage: Non-pressing water on walls and floor slabs in contact with the soil with less permeable soil with drainage Austria: in accordance with Ö-Norm 3692 (non-pressing water) KMB (polymer-modified thick bituminous coating) in accordance with EN 15814	<ul style="list-style-type: none"> PCI Pecimor 1K PCI Pecimor 2K PCI Pecithene 1000 PCI Barraseal Turbo PCI Barraseal Turbo 1K
DIN 18195-6	Standing seepage water and pressing water	W2.1-E 	Pressing water Situation 1: Moderate exposure to pressing water with accumulated water up to 3 m and installation in the soil to a depth of 3 m Situation 2: Moderate exposure to pressing water with groundwater up to 3 m and any depth of bonding in soil Situation 3: Moderate exposure to pressing water with flood water up to 3 m and installation in the soil to a depth of 3 m	<ul style="list-style-type: none"> PCI Pecimor 2K <p>Note: PCI Barraseal Turbo or PCI Barraseal Turbo 1K only possible for pressing water in accordance with flexible waterproofing slurry test principles. Separate</p>

The waterproofing standard has been in force since July 2017 and has replaced all parts of the old waterproofing standard DIN 18195. In addition to bituminous waterproofing products, which were already covered by the previous standard, the DIN 18533 also includes flexible

mineral waterproofing slurries. DIN 18533 applies to the waterproofing of wall and floor surfaces in contact with the soil, wall cross sections and plinth areas of above-ground structures as well as buried underground structures in open pits.

Previous exposure classes in accordance with DIN 18195 or areas covered by construction regulations		Exposure classes in accordance with DIN 18533 (waterproofing of building elements in contact with the soil)		
Standards	Areas of application	Water exposure class	Description	PCI products in accordance with standard
DIN 18195-5	Non-pressing water on inclined or horizontal surfaces; maximum depth of accumulation 10 cm	W3-E 	Non-pressing water on slabs covered by soil, depth of accumulation 10 cm	<ul style="list-style-type: none"> PCI Pecimor 2K <p>Note: PCI Barraseal Turbo or PCI Barraseal Turbo 1K only possible in accordance with the test principles for mineral waterproofing slurry or flexible polymer-modified thick coating. Separate</p>
DIN 18195-4	Spray water, foundation level	W4-E 	Spray water and soil moisture at plinth: Situation: water at base of wall, single-leaf brickwork, with basement	<ul style="list-style-type: none"> PCI Pecimor 1K PCI Pecimor 2K PCI Pecithene 1000 PCI Barraseal Turbo PCI Barraseal Turbo 1K
DIN 18195-4	Horizontal waterproofing in and under walls	W4-E 	Apillary water in and under walls	<ul style="list-style-type: none"> PCI Barraseal Turbo PCI Barraseal Turbo 1K PCI Pecithene 1000 (without soil pressure from side)

PRODUCT OVERVIEW

Primers							Mortar for water-proofing / concave moldings		Liquid-applied waterproofing products							Insulation board adhesive
Use in system	PCI Pecimor Betongrund	PCI Pecimor F	PCI Gisogrund 404	PCI Pecithene Primer	PCI Pecithene Primer W	PCI Polyfix plus / plus L		PCI Pecimor 1K	PCI Pecimor 2K	PCI Barraseal Turbo	PCI Barraseal Turbo 1K	PCI Barraseal	PCI Barraseal Ready	PCI Pecimor DK		
																
PCI Pecimor system	Concrete primer	Multi-use primer				Mortar for water-proofing / concave moldings		Waterproofing, moisture exposure class W1-E, W4-E	Waterproofing, moisture exposure class W1-E - W4-E	Plinth waterproofing	Plinth waterproofing	Protection against moisture from the back	Flexible waterproofing for detail connections, moisture exposure class W4-E	Insulation board adhesive		
PCI Barraseal Turbo system			Primer			Mortar for water-proofing / concave moldings				Waterproofing, moisture exposure class W1-E, W2.1-E, W4-E	Waterproofing, moisture exposure class W1-E		Flexible waterproofing for detail connections, moisture exposure class W4-E			
PCI Pecithene system				Summer primer	Winter primer					Plinth waterproofing	Plinth waterproofing		See PCI Barraseal Turbo system	Insulation board adhesive		
PCI Pecithene double-leaf brick-work system				Summer primer	Winter primer					Plinth waterproofing	Plinth waterproofing			Insulation board adhesive		
PCI Barra system						Mortar for water-proofing / concave moldings				Plinth waterproofing	Plinth waterproofing	Waterproofing slurry				
Properties																
Base material	Powder mixture	Bituminous	Polymer dispersion	Bitumen/rubber emulsion	Rubber	Fast setting cement mortar		Bituminous	2-component bituminous/cement	2-component cement dispersion	2-component cement dispersion	Cement dispersion mixture	Silane-modified polymer	2-component bituminous/cement		
Layer thickness		As a bituminous protective coating, two coats, 0.3 mm						Moisture exposure class W1-E, W4-E Dry film thickness at least 3 mm	Moisture exposure class W1-E, W4-E Dry film thickness at least 3 mm Moisture exposure class W2.1-E, W3-E Dry film thickness at least 4 mm	For building waterproofing (W1-E, W4-E) about 2 mm dry film thickness	For building waterproofing (W1-E, W4-E) about 2 mm dry film thickness	For soil moisture at least 2 mm, for pressing water at least 3.5 mm dry film thickness	Dry film thickness according to DIN 18533 (FKL) 2 mm	Combed on, approx. 10 mm or spot bonding		
Rainproof after	Wet in wet	Approx. 2 hours	Approx. 3 hours	Approx. 1 hour	+23 °C = 30 minutes down to -5 °C = 2 hours*			Approx. 5 hours	Approx. 4 hours	Approx. 4 hours	Approx. 5 hours	Approx. 1 day	Approx. 1 hour	Approx. 4 hours		
Can be loaded after		Approx. 1 day	Approx. 3 hours	Approx. 1 - 3 hours	See above			Approx. 4 days	Approx. 2 days	Approx. 3 days	Approx. 3 days	Approx. 3 days	Approx. 1 day	Approx. 4 hours		
Codes and standards		GEV-EMICODE EC1 PLUS						DIN 18533 moisture exposure class W1-E, W4-E	DIN 18533 moisture exposure class W1-E, W2.1-E, W3-E, W4-E General approval by construction authorities in accordance with test principles for ÜBB and FBB ** Radon tightness test	DIN 18533 moisture exposure class W1-E, W4-E DIN 18535 moisture exposure class W1-B, W2-B General approval by construction authorities in accordance with test principles for MDS, FPD, ÜBB ** Radon tightness test	DIN 18533 moisture exposure class W1-E, W4-E DIN 18535 moisture exposure class W1-B, W2-B General approval by construction authorities in accordance with test principles for MDS, FPD, ÜBB ** Surface protection in accordance with EN 1504, Rili Sib OS 5b Radon tightness test	DIN 18533 moisture exposure class W1-B, W2-B general approval by construction authorities in accordance with test principles for MDS ** Test for service with drinking water in accordance with DVGW W347/W270	DIN 18533 moisture exposure class W4-E			
Consumption	Approx. 100 - 250 ml/m ² (powder, approx. 30 g/m ²)	Undiluted approx. 250 - 300 ml/m ² diluted 1:5 approx. 50 ml/m ²	Approx. 100 to 200 ml/m ²	> +5 °C = approx. 150 g/m ² < +5 °C = approx. 300 g/m ²	Approx. 120 to 300 g/m ²	2.9 kg powder/m ² (with 3 - 4 cm radius)		Wet film thickness (WFT) 4 mm (dry film thickness (DFT) 3 mm) approx. 4.0 l/m ²	Moisture exposure class W1-E, W4-E Wet film thickness 4 mm (dry film thickness 3 mm) approx. 4 l/m ² Moisture exposure class W2.1-E, W3-E Wet film thickness 5 mm (dry film thickness 4 mm) approx. 5 l/m ²	Approx. 2.4 kg/m ² with 2 mm DFT (DIN 18533 W1-E and W4-E , pressing water acc. to test principles for MDS ** with waterproofing tape) approx. 4.8 kg/m ² with 4 mm (pressing water to test principles for FPD ** without waterproofing tape)	Approx. 2.2 kg/m ² with 2 mm DFT (DIN 18533 W1-E and W4-E , pressing water acc. to test principles for MDS ** with waterproofing tape) approx. 4.4 kg/m ² with 4 mm (pressing water to test principles for FPD ** without waterproofing tape)	For 2 mm dry film thickness 3.2 kg powder/m ² (soil moisture) For 3.5 mm dry film thickness 5.6 kg powder/m ² (pressing water in tanks)	Consumption for 2.0 mm dry film thickness approx. 3 kg/m ²	3.5 - 4.5 kg/m ²		

* Please observe working time window stated in technical data sheet

** MDS = mineral waterproofing slurry, FPD = flexible polymer-modified thick coating, ÜBB = transition to concrete components with high water penetration resistance, FBB = joint seals for elements, e.g. made of waterproof concrete

PRODUCT OVERVIEW

	Cold-applied self-adhesive membranes					Fixing tape	Sealing tape	Fabric sheets
Use in system	PCI Pecithene 1000	PCI Pecithene 150 / PCI Pecithene 300	PCI Pecithene 190°		PCI Pecithene A 90°	PCI Pecithene Fix	PCI Pecitape 250	PCI reinforcement fabric
								
PCI Pecimor system						Edge and connection tape	Structural joints	Waterproofing, class W2.1-E
PCI Barraseal Turbo system						Edge and connection tape	Structural joints	
PCI Pecithene system	Waterproofing, moisture exposure class W1-E, W4-E	Waterproofing, moisture exposure class W1-E, W4-E	Corners		Corners	Edge and connection tape		
PCI Pecithene – double-leaf brickwork system			Corners		Corners	Edge and connection tape		
Properties								
Base material	Tear-resistant Valéron special foil with a bitumen rubber adhesive compound	Tear-resistant Valéron special foil with a bitumen rubber adhesive compound	PVC molding		PVC molding	Self-adhesive butyl sealing tape with nonwoven plastic backing on one side	Special rubber tape with nonwoven backing	Tear-resistant glass fiber reinforcement fabric
Layer thickness	1.5 mm	1.5 mm	1 mm		1 mm	0.8 mm	0.5 mm	Weight per unit area
Rainproof after	Can be used immediately	Can be used immediately	Prefabricated corner for immediate, reliable bonding to PCI Pecithene 1000 and PCI Pecithene 150/PCI Pecithene 300		Prefabricated corner for immediate, reliable bonding to PCI Pecithene 1000 and PCI Pecithene 150/PCI Pecithene 300	Can be used and covered immediately		For insertion in the first layer of PCI Pecimor 2K, mesh spacing 7 x 7 mm
Codes and standards	DIN 18533 moisture exposure class W1-E, W4-E DIN EN 13969, DIN EN 14967 radon tightness test	DIN 18533 moisture exposure class W1-E, W4-E DIN EN 13969, DIN EN 14967 radon tightness test						DIN 18533 moisture exposure class W2.1-E

	Borehole injection					Refurbishment mortar		
	PCI Barra Creme	PCI Barra Gisol	PCI Barra Inject				PCI Polycret 50	PCI Saniment 2 in 1
								
PCI Barra system	Horizontal damp-proof course	Horizontal damp-proof course	Cement suspension				Leveling mortar	Roughcast
Properties							Properties	
Base material	Silane cream	Aqueous alkaline solution with potassium methyl silicate	Special cement mixture				Base material	Special cement mixture
Duration of exposure	Approx. 36 hours	At least 24 hours					Thickness of render	3 - 50 mm
Can be backfilled / curing completed	After 36 hours	After 24 hours	Approx. 7 days				Drying time	About 1 day per millimeter of thickness
Codes and standards	WTA code of practice "Masonry injection for protection against capillary moisture"	WTA code of practice "Masonry injection for protection against capillary moisture"					Can be worked on after	Can be covered with render or tiles after about 5 hours
Consumption	Wall thickness: 12 cm - approx. 150 ml/m 24 cm - approx. 310 ml/m 36 cm - approx. 400 ml/m	Approx. 14 to 23 l/m ² of wall cross section	About 1.2 kg of dry mortar per litre of cavity to be filled				Codes and standards	WTA code of practice
							Consumption	Approx. 1.6 kg/mm ² per mm layer thickness
								Approx. 0.95 kg/m ² and mm of layer thickness



Für Bau-Profis

PCI Augsburg GmbH

Piccardstr. 11 · DE - 86159 Augsburg

www pci-augsburg.eu

Please follow us on:

