

Thick bitumen coating

PCI Barrapren[®]

423

for external basement walls
and foundations

FIELDS OF APPLICATION

- For walls and floors.
- For indoor and outdoor use.
- For tanking ground covered, vertical and horizontal concrete areas against flowing, standing and seepage water (foundations, retaining walls, basements, underground parking lots etc.).
- Bonding of heat insulation and drain boards.
- Protection against concrete-aggressive waters from the ground (humid acids).



Tanking of an external basement wall with the thick bitumen coating PCI Barrapren.

FEATURES AND BENEFITS

- **1 part.**
- **Ready to use.**
- **Waterproof.**
- **Solvent free.**
- **Suitable for green concrete.**
- **Crack bridging.**
- **Manual** and spray application possible.
- **Good adhesion** to damp substrates.
- **Rapidly dry** and rainproof.
- **Resistant to weathering, ageing** and decay.



TECHNICAL DATA

MATERIAL

Material base	bitumen and rubber
Consistency	pasty
Density at 20°C	approx. 1 g/cm ²
Colour	brown (after drying: black)
Labelling for	
- Regulation for hazardous goods on roads	non hazardous
- Regulation for hazardous substances	no labelling requirement for this product
<i>For further information refer to Health and Safety.</i>	
Thickness per layer	approx. 1.5 mm
Consumption	2 layers at 1.5 kg/m ² each, 3 kg/m ² cover approx. 1.8 mm dry film thickness
Working temperature	+5°C to +40°C
Factor of resistance for water vapour diffusion	approx. 6'000
Curing time*	
- notched trowel, intermediate drying	approx. 3 hours
- spray application, intermediate drying	approx. 2 hours
- horizontal areas	approx. 24 hours
- total layer thickness of 3 mm (wet)	approx. 2-4 days
Packaging	30 kg hobbock 200 kg barrel
Storage and shelf life	min. 12 months when stored in original packaging and in dry conditions, protect from frost, no permanent storage over +30°C

* At +20°C and 60% relative humidity.

PREPARATION OF SUBSTRATE

Suitable substrates are structurally sound concrete corresponding to at least strength class B 15, plaster of mortar group II,III according to DIN 18 550, masonry according to DIN 1053 made of bricks, sand lime bricks, light weight concrete and hollow concrete blocks, aerated concrete.

The substrate must be sound, practically smooth and fine-pored in the surface. It must be free from honeycombs, voids, cracks and ridges, dust, tar, pitch, forming oil, old paint or other bond inhibiting residues. The substrate should be dry or just slightly damp. Edges should be broken.

Covings (both horizontal and vertical) must be rounded with PCI Repafix or a cement mortar modified with PCI Emulsion, minimum radius 4 cm. In case of brick-built basements, in particular if the building is of cavity construction, the top of the basement masonry not covered by the basement ceiling must be protected from penetrating water prior to the tanking works. This can be done e.g. by trowelling with PCI Dichtschlämme or PCI Barrapren after closing the openings in the head of the brickwork with cement mortar.

PREPARATION OF SUBSTRATE

In case of brick-built basements it occurs again and again that, during the carcass phase, the bottommost course of masonry gets completely soaked with water which has collected on the floor plate inside the basement. To prevent this inadmissible soaking an intermediate waterproofing with PCI Dichtschlämme or PCI Seccoral is required:

Apply PCI Dichtschlämme or PCI Seccoral to the transition area floor plate/basement wall after the coving is formed. This flat coat should be applied from the front end of the floor plate over the coving up to at least the top edge of the first course of masonry preventing water from acting on the reverse side onto the PCI Barrapren coating.

The levelling compound PCI Polycret 5 and/or PCI Polycret 20 or a render coat of mortar group P II,III can be applied to level irregularities, close mortar gaps, spillings or open butt joints > 5 mm.

The materials used to prepare the substrate (e.g. for coving or intermediate waterproofing) must have completely cured prior to starting the tanking works.

APPLICATION PROCEDURE

- ❶ PCI Barrapren is ready to use and can be applied by a notched trowel or spray gun onto the damp substrate.
- ❷ PCI Barrapren is applied in two coats of 1.5 kg/m² each. The application is carried out with a notched trowel; the first coat with the notched edge, the second coat with the straight edge parallel to the first application.
- ❸ The fabric sheeting PCI Gewebbahn can be integrated in the fresh first coat strengthening the tanking around construction joints, corners and edges.
- ❹ Apply the second coat as soon as the first one shows sufficient strength and/or is walkable on horizontal areas.
- ❺ Protect PCI Barrapren from rain during the application.
- ❻ If you work on large projects (>200 m²) it is profitable to use a spray gun. Application also in 2 layers of 1.5 kg/m² each.
- ❼ The waterproofing tape PCI Pecitape 220 should be integrated in the coating over joints e.g. structural joints, junctions and areas vulnerable to cracks. Apply a coat with PCI Barrapren, 2mm thick, to both sides of the joint. Press PCI Pecitape 220 into the fresh coating (do not use any pointed or sharp-edged tools) and trowel over with PCI Barrapren until the required layer thickness is achieved.

PROTECTION OF THE COATING

PCI Barrapren areas should be protected from damages, e.g. when backfilling the excavation, by positioning suitable drain boards. The excavation cannot be backfilled until the coating has sufficiently cured. Low temperatures and high humidity delay the curing process. Rubble, debris and chippings are not suitable to be used as backfilling material. In case of horizontal surfaces further layers such as screeds on an isolation layer etc. can be applied to the PCI Barrapren coating after approx. 5 days.

PERIMETER INSULATION

Insulation boards can be fastened to the cured PCI Barrapren coating in the dot bonding method with PCI Barrapren or alternatively with PCI Pecimor 2N or PCI Pecimor Super. The area which has not completely cured must not be exposed to water.

PLEASE NOTE

- PCI Barrapren is not suitable for areas exposed to drinking water and for waterproofing the inside of swimming pools.
- Moisture acting on the reverse side of the coating, e.g. in soaked masonry, is not permissible.
- Protective coatings must not be applied to the finished coating until the bitumen coating has completely cured.
- Lumped and line loads as well as loads affecting the operativeness of the tanking measures by being indented must be prevented.
- Damages might occur if the coating has not completely cured and is exposed to driving rain.
- Avoid direct contact with joint sealants.
- Do not backfill excavations with rubble, coarse stones or debris. The coating might get damaged.
- Excavations with non-cohesive ground should be backfilled and compacted in layers to prevent settlements for the most part.
- Clean tools with plenty of water immediately after use; once the product is hard it can only be removed by mechanical means.
- It is not allowed to use PCI Barrapren as tanking measure under the permanent groundwater table.
- Drain boards bonded with PCI Barrapren should be secured from falling off / slipping off until PCI Barrapren has completely cured.
- The technical workmanship and different substrate conditions can increase the given consumption quantities.
- In case of extreme heat we recommend to do the waterproofing works in the evening hours or to shadow the construction.

HEALTH AND SAFETY

Do not allow the product to dry on the skin. Dried product can be removed by products containing oil or fat (such as paraffin oil or edible oil). 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 attention.

ECOLOGY/ DISPOSAL

PCI Barrapren is hazardous to water in liquid condition. Do not put in the drains, bodies of water or ground. It must be properly disposed of.

PCI Augsburg GmbH

Piccardstr. 11
86159 Augsburg
P.O.B. 10 22 47
86012 Augsburg
Germany
Tel. +49 (821) 59 01-0
Fax +49 (821) 59 01-390
www.pci-augsburg.de

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