

System data sheet Edition September 2020



# System for Waterproofing of Buildings PCI Pecimor®

System for waterproofing buildings in accordance with DIN 18533 W1, W2, W3 and W4 with polymer-modified thick bituminous coatings (PMBC)



With respect to the expected impact on a basement structure, applications are assigned to water exposure classes W1 to W4 in accordance with DIN 18533:

# The new waterproofing standard DIN 18533 – what has changed Comparison of the old and new rules for the waterproofing of buildings

Previous exposure classes in accordance with DIN 18195 or areas covered by construction regulations		New exposure classes in accordance with DIN 18533 (Waterproofing of elements in contact with soil) and DIN 18535 (Waterproofing of tanks and pools)			
Standards	Areas of application	Water exposure class	Description	PCI products in accordance with standard	
DIN 18195-4	Soil moisture	L STATE	W1.1-E (soil moisture) Situation 1: "Soil moisture on floor slabs) with highly permeable soil (k>10-4 m/s)" Situation 2: "Soil moisture and non-pressing water on walls and floor slabs in contact with the soil with highly permeable soil (k>10-4 m/s)"	PCI Pecimor® 1K     PCI Pecimor® 2K     PCI Pecithene®     PCI Berraseal® Turbo     ((concrete substrates))	
DIN 18195-4	Non-standing seepage water		W1.2-E (non-standing) "Non-pressing water on walls and floor slabs in contact with the soil with a less permeable soil with drainage"	<ul> <li>PCI Pecimor<sup>6</sup> 1K</li> <li>PCI Pecimor<sup>6</sup> 2K</li> <li>PCI Pecithene<sup>6</sup></li> <li>PCI Barraseal<sup>a</sup> Turbo (concrete substrates)</li> </ul>	
DIN 18195-6	Standing seepage water and pressing water	A DE 2	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	<ul> <li>PCI Pecimor® 2K</li> <li>Note:</li> <li>PCI Barraseal® Turbo only possible for pressing water in accordance with flexible waterproofing slurry test principles. Separate agreement required.</li> </ul>	
DIN 18195-5	Non-pressing water on inclined or horizontal surfaces; maximum depth of accumulation 10 cm		W 3-E: "Non-pressing water on slabs covered by soil ", depth of accumulation 10 cm	PCI Pecimor® 2K Note:     PCI Barraseal® Turbo only possible for pressing water in accordance with flexible waterproofing slurry test principles. Separate agreement required.	
DIN 18195-4 KMB code	Spray water, foundation level		W 4-E: Situation: water at base of wall, single-leaf brickwork, with basement	PCI Pecimor® 1K     PCI Pecimor® 2K     PCI Pecithene®     PCI Barraseal® Turbo	
DIN 18195-4 KMB code	Horizontal waterproofing in and under walls		W 4-E: Water in and under walls	<ul> <li>PCI Barraseal® Turbo</li> <li>PCI Pecithene® (without soil pressure from side)</li> </ul>	

DIN 18195-7 Test principles for flexible/rigid mineral waterproofing	Waterproofing against water pressing from the inside	Tanks DIN 18535	W1-B: filling level < 5 m W2-B: filling level <10 m in accordance with DIN 18535-3: Waterproofing of tanks and pools	PCI Barraseal*     PCI Barraseal*     Turbo
slurries				

#### Waterproofing of basements in accordance with DIN 18533 using polymermodified thick bituminous coatings

PCI offers reliable, safe, solvent-free products for the exterior waterproofing of buildings. Materials that protect structures or elements of structures against moisture are subject to considerable scrutiny on the part of the construction authorities. Waterproofing must provide a structure with optimum protection against damage by water and must ensure that the rooms can be used for the intended purpose. In areas in contact with or near to the soil, the expected



Concave moulding made from water-impermeable mortar, e.g. PCI Polyfix  $\ensuremath{\mathbb{P}}$  Plus L

exposure to water must be thoroughly investigated. With PCI Pecimor<sup>®</sup>, PCI offers a tested waterproofing system in accordance with the requirements of DIN 18533. The products also meet the requirements for general approval by the construction authorities for the waterproofing of buildings, also at transitions to concrete elements with high resistance to water penetration and as sealing materials for joints between concrete elements with high resistance to water penetration.



PCI Pecimor  $\ensuremath{\mathbb{R}}$  waterproofing must be continued to a depth of at least 15 cm on the foundation slab

#### Inspection of work on site

The substrate must be prepared and must be suitable for the application of PCI Pecimor<sup>®</sup>. Edges must be broken and all types of interior edge must be rounded off to a radius of at least 4 cm. In accordance with DIN 18533, thick bituminous coatings must not be exposed to moisture from the back. Thick bituminous coatings cannot dry on masonry which is wet and continually moistened. In order to ensure that the thick bituminous coating can dry, an intermediate coat of a waterproofing slurry such as PCI Barraseal<sup>®</sup> Turbo must first be applied direct to the level masonry. This intermediate coat

must be continued from the area in contact with the soil to the level of the foundation so as to allow a simple transition to other materials (such as foundation render). Before applying a concave moulding to the foundation, an intermediate layer of waterproofing slurry must be applied from the edge of the foundation slab via the concave edge at least to the top edge of the first row of bricks. Part 1 of the new DIN 18533 calls for a concave moulding of water-impermeable mortar. PCI Polyfix<sup>®</sup> Plus L meets these requirements and can already be covered by a thick bituminous coating after 20 minutes. For exposure to soil moisture and non-pressing water (exposure classes W 1 and W 4), the requirements for the waterproofing of structures in contact with the soil using polymer-modified thick bituminous coatings are as follows:

- Dry film thickness at least 3 mm (wet 4 mm)
- Two coats, which may be applied wet in wet and must result in a total dry film thickness of at least 3 mm In the case of standing seepage water and moderate exposure to pressing water (exposure class W2.1), the requirements are as follows:
- Dry film thickness at least 4 mm (wet 5 mm)
- Two coats, with PCI Gewebebahn reinforcing fabric between them. The second coat may be applied as soon as the first coat is sufficiently strong to prevent damage by the application of the second coat.



Application of reinforcing fabric to fresh PCI Pecimor® 2K thick bituminous coating



Bonding of insulating boards with PCI Pecimor® 2K or the insulating board adhesive PCI Pecimor® DK



#### Please note:

In accordance with DIN 18533, wet film thickness measurements and drying tests must be carried out. Quality assurance on site must be documented in accordance with DIN 18533, Part 3. The work report for PCI Pecimor®, which is available in the download section of the product information for PCI Pecimor® 2K and 1K, may be used for this purpose. In accordance with the recognized rules of technology, work must be carried out "following the sun" and bonding work must be carried out in the evening or under a shelter to provide shade. PCI Pecitape® 250 must be worked into the coating over joints, for example joints between building elements, connections and areas with a high risk of cracking. In the case of heavy rain, the thick coating may not be thoroughly cured or the bonding may be damaged. Construction trenches must not be filled with rubble, gravel or broken rock in order to prevent damage to the drainage and insulating layer.

The adhesive cannot compensate in full for the thermal expansion of drainage or insulating boards. For this reason, the construction trench must be backfilled as soon as possible in layers with non-cohesive soil (highly permeable, ensuring good drainage).



Insertion of Pecitape® 250 waterproofing tape over a joint

## **Overview of Construction Systems**

Repair

System for Concrete and Masonry Refurbishment





System for Concrete



System for Structural







System Barraseal Turbo

System Pecimor

System BT 21

System for Double-Leaf Brickwork









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The specifications in the valid technical data sheets are to be followed for the use of the PCI products mentioned.

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is always available on the Internet under www.pci-augsburg.de



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