

Multi-use light, flexible adhesive

PCI Nanolight®

for all kinds of substrates
and ceramic coverings

PCI®

Für Bau-Profis

NEW!
With improved
application
properties



Fields of application

- For indoor and outdoor use.
- For walls and floors.
- **For all substrates:** cement screed, rough-ground anhydrite screed, gypsum-based floating screed, concrete, precast concrete elements, aerated concrete, heated screed, plasterboards, gypsum fibre boards, dry screed, magnesite screed, mastic asphalt (only indoors), insulation boards, gypsum blocks, plaster, render, gauged render, brickwork, old ceramic coverings and even, structurally sound wooden substrates such as particle boards, OSB boards etc., metal substrates (only indoors), firmly adhering PVC coverings.
- **For all ceramic coverings laid in a thin bed or medium bed:** non-vitrified tiles, vitrified tiles,

fully-vitrified tiles, porcelain mosaic, glass mosaic, glass tiles, brick tiles and terracotta.

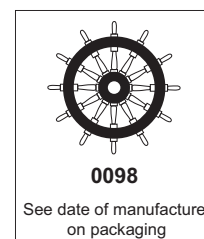
- For laying tiles and flagstones on PCI Pécidur HR foam supporting elements, PCI Polysilent impact sound insulation and isolation board as well as PCI Pécilastic isolating fabric underlay.
- For laying tiles and flagstones on PCI Lastogum bonded waterproofing (e.g. private bathrooms), PCI Seccoral (e.g. swimming pool and terraces) or PCI Apoflex (e.g. industrial kitchens).
- For repairing and levelling irregular wall surfaces and floor surfaces (e.g. brickwork, render, screed) before laying tiles.



Variable range of application – for all kinds of substrates and ceramic coverings.

Features and benefits

- With unique light filler combination and nanotechnology.
- High coverage due to the use of special additives and a unique filler combination.
- Creamy and workable mortar to be easily applied by trowel.
- Low shrinkage during the curing phase, mortar can be applied in a thin bed or medium bed up to a thickness of 10 mm.
- Non-sag properties, therefore easy and quick application.



meets
requirements of
**C2TE
S1**
in accordance with
EN 12004

CE
0780,0767
PCI Augsburg GmbH
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D-86159 Augsburg
13
DE0017/03
PCI Nanolight (DE0017/03)
EN 12004:2007+A1:2012
Improved deformable cementitious
adhesive with reduced slip and
extended open time
for tiles for indoor and outdoor use
EN 12004 C2TE S1
Reaction to fire Class A2-s1, d0
Initial tensile adhesion strength Class A2-s1
≥ 1.0 N/mm²
Tensile adhesion strength after water immersion ≥ 1.0 N/mm²
Tensile adhesion strength after heat ageing ≥ 1.0 N/mm²
Tensile adhesion strength after freeze/thaw cycle ≥ 1.0 N/mm²

Features and benefits

- Flexible, compensates elongations of the substrate caused by variations in temperature.
 - Dust reduced, less development of dust when opening the bag, pouring and mixing the product.
 - Very low emissions, GEV-EMICODE EC1 PLUS R.
 - Low in chromates.
 - Meets the requirements of
 - the guideline "Flexmörtel (flexible mortar)" issued by Deutsche Bauchemie e.V. (German Construction Chemicals Industry)
 - C2 TE S1 to DIN EN 12004
 - the test principles to issue an official test certificate for bonded waterproofing in combination with PCI bonded waterproofing such as PCI Lastogum, PCI Seccoral 1K, PCI Seccoral 2K Rapid, PCI Apoflex F/W and PCI Pecilastic W.
- All test certificates are available under www.pci-augsburg.de.

Technical data

Material

Material base	dry mortar mix with a special filler combination
Storage	in a dry place, no permanent storage over +30°C
Shelf life	min. 12 months
Packaging size	15 kg PE lined heavy-duty paper bag stock no. 3773/3

Application

Consumption	approx. 0.8 kg of dry powder/m ² and mm adhesive bed thickness	
Colour	grey	
Consumption and coverage*		
Required notch size:	consumption per m ²	15 kg PCI Nanolight cover approx.
- 4 mm	0.9 kg	16.6 m ²
- 6 mm	1.3 kg	11.5 m ²
- 8 mm	1.8 kg	8.3 m ²
- 10 mm	2.1 kg	7.1 m ²
Adhesive bed thickness	from 1 to 10 mm	
Processing temperature	+5°C to +25 °C	
Gauging water for		
- 1 kg powder	approx. 500 ml	
- 15 kg bag	approx. 7.6 litres	
Slake time	approx. 3 minutes	
Processing time**	approx. 90 minutes	
Open time**	approx. 30 minutes	
Curing times** (on low absorbent substrates)		
- walkable after	approx. 8 hours	
- groutable after	approx. 8 hours	
- able to bear weight after	approx. 24 hours	
Temperature resistance	-30°C to +80 °C	

* The surface structure of the substrate and the reverse profile of the used ceramic are also important factors, besides the tile size, for the consumption of mortar. The indications refer to the installation of slightly profiled non-vitrified tiles or vitrified tiles on render or cement screed.

** At +23°C and 50% relative humidity. Higher temperatures reduce, lower temperatures increase the times given.

Preparation of substrate

Minimum age of the substrate:

- PCI Novoment M1 plus and/or PCI Novoment Z1 screed: 24 hours
- PCI Novoment M3 plus and/or PCI Novoment Z3 screed: 3 days
- Cement screed: 28 days
- Concrete: 3 months

The substrate must be structurally sound, clean and able to bear weight. Oil stains, residues which could impair adhesion and other spills must be thoroughly removed.

The substrate must be plumb and flush in accordance with DIN 18 202 for the installation of ceramic tiles and flagstones. The substrate must have a slope of min. 1.5% for the installation outdoors. Plaster/render substrates must be released by the manufacturer for tiling and must be suitable for the intended purpose. Level small-surface irregular substrates with PCI Nanolight (up to 10 mm) or large surfaces alternatively with PCI Polycrret 5/20, PCI Pericret, PCI Periplan or PCI Periplan Fein before tiling. Level wooden floorboards with PCI Periplan Extra before tiling.

Screeds on isolation layers or insulation layers tend to deform due to non-uniform drying (concave arching).

Please contact the PCI technical help-line prior to levelling or tiling to avoid excessive lowering of the edge at a later stage. Prime very absorbent cement-based substrates and aerated concrete with PCI Gisogrund, diluted 1 : 1 with water. Prime rough-ground anhydrite screeds, gypsum-based flowable screeds, gypsum-based substrates and mastic asphalt screeds in the interior with undiluted PCI Gisogrund. Prime magnesite screeds with PCI Gisogrund 404, diluted 1 : 1 with water.

Prime cementitious substrates and gypsum-based substrates with PCI Gisogrund Rapid if time is a factor. Prime old ceramic tiles with PCI Gisogrund 303. Old PVC coverings must firmly bond to the substrate, any contamination such as grease etc. must be removed and the bond area sanded and primed with PCI Gisogrund 303. Metallic substrates in the interior such as steel and aluminium which are not exposed to moisture must be well

supported to provide resistance to bending and oscillations. The substrate must be free from rust and grease. Prime metal with PCI Gisogrund 303. Particle boards or OSB boards may have a moisture content of max. 10%. The particle board (V100) or OSB board must be at least 25 mm thick for installation on floors and at least 19 mm for installation on walls. The particle boards must be screwed to the substructure at a distance of max. 40 cm between screws. The edge joint must be at least 8 mm wide. The butt joints of the particle boards must be glued. Prime particle boards and OSB boards in dry areas with PCI Wadian and waterproof with PCI Lastogum. Allow primer to dry. Newly-laid cement screeds (heated and unheated) must not have a residual moisture content in excess of 4%, anhydrite screeds and gypsum based screeds not more than 0.5% (measured with a CM meter).

Application procedure of PCI Nanolight

Mixing mortar

- 1 Fill gauging water (see table) in a clean mixing bucket. Add powder while mixing to a creamy, lump-free consistency using a suitable paddle (e.g. from Collomix) attached to an electric drill.
- 2 Leave PCI Nanolight to stand for approx. 3 minutes, then remix briefly.

Levelling irregular substrates

- 1 Mortar can be applied by trowel in the usual working method. Small spillings can be scraped off with a steel trowel, large areas with a browning rod in horizontal and vertical direction.
- 2 The levelling compound can be tiled on walls after approx. 5 hours, on floors after approx. 24 hours.

Laying tiles

- 1 Apply a thin scratch coat to the substrate using the straight edge of the trowel.
- 2 Comb mortar onto the fresh scratch coat using the notched edge of the trowel. Apply only as much mortar as can be covered with tiles within the open time. Check open time by touching the mortar with your fingertip.
- 3 Place tiles in the adhesive bed with a twist and slide motion and adjust them to correct position.

Grouting

Cementitious joint grouts/epoxy resin joint grout

	Non-vitrified tiles	Vitrified tiles	Fully-vitrified tiles	Glass tiles/ glass mosaic
PCI Nanofug® from 1 mm	●	●	●	●
PCI Nanofug® Premium 1 to 10 mm	●	●	●	●
PCI Flexfug® 2 to 10 mm	○	●	●	too coarse for glass tiles ○
PCI Durafug® NT 1 to 20 mm	●	●	●	○
PCI Durapox® NT / NT plus 1 to 20 mm (epoxy resin)	●	●	●	●

● to be recommended

● suitable

○ suitable to a limited extent

Elastic joints

- The standards issued by Zentralverband des Deutschen Baugewerbes (Central Association of

the German Building Industry) are valid for the arrangement of joints.

- Seal movement joints, corner joints (floor/wall) and connection joints

(fixtures/tiles, wood/tiles) with the elastic joint sealant PCI Silcofug E or PCI Silcoferm S.

Please note

- Do not apply at temperatures below +5°C and above +25°C and in hot weather and strong wind.
- When laying tiles in the interior on existing ceramic wall tiles not subject to wet conditions, it is possible to use PCI Nanolight as a bonding slurry instead of the primer PCI Gisogrund 303; however the PCI Nanolight layer must have cured before tiling.
- Apply PCI Polyhaft bonding slurry and allow to cure when laying tiles on old ceramic or natural stone coverings in the exterior or when being exposed to permanently wet conditions (e.g. shower facilities etc.).
- The regulation DIN 4725-4 and the ZDB leaflet „Ceramic tiles and flagstones, natural stones and concrete ashlar on heated, cement-based flooring constructions” must be followed for laying tiles on heated screeds.
- The open time is reduced in case of absorbent substrates (recommendation: priming with PCI

Gisogrund or PCI Gisogrund Rapid).

- Never add water or dry powder to reconstitute a PCI Nanolight mix which has already begun to set.
- Use either PCI Nanolight in the combined method (buttering/floating) or the flowable mortar PCI Flexmörtel S1 Flott for laying floorings in the exterior.
- When using PCI Nanolight to lay ceramic tiles in swimming pools, a curing time of minimum 7 days must be followed before filling the pool with water.
- When laying glass mosaic in swimming pools, only front-sided paper-faced glass mosaic or front-sided foil-faced glass mosaic is allowed to be used.
- Translucent glass mosaic appears darker when laying it with PCI Nanolight. If this is not desired please use PCI Nanolight White or PCI Durapox NT/NT Plus for wet areas.
- Glass tiles with a reaction resin coating on the bottom side may only

be laid with PCI Nanolight if the coating is alkali resistant.

- When laying mosaic tiles, it is necessary to rake joints clean to a uniform depth to ensure proper, stainfree grouting afterwards. This also applies to front-sided paper-faced mosaic.
- Please follow the standard DIN 18 515-1 „Outer claddings” for laying tiles on facades.
- Suitable tools are available from Collomix GmbH, Horchstraße 2, 85080 Gaimersheim/Germany, www.collomix.de.
- Clean contaminated tools and ceramic with water immediately after use; when the product has cured it can only be removed by mechanical scraping.
- Use PCI Carralight, PCI Carraflex, PCI CarrafloTT NT or PCI Carrament for laying natural stones.
- Store in a dry place, no permanent storage over +30 °C. Open bags must be immediately closed after use.

Declaration of Performance

The Declaration of Performance can be downloaded as pdf file under www.pci-augsburg.eu/dop.

Nano technology

For years we have been intensively engaged in the research of Nano structures in cementitious products and we have a variety of analytical possibilities and methods. By examining the crystal structures of cement

hardening from the very first minute the formation of Nano structures within the cement matrix can be observed and effected. The combination of various kinds of cement and the specific formulation, e.g. with high-quality

polymers, light fillers and additives leads to improved and new characteristics of the product.

PCI Augsburg GmbH does not use Nano particles in any of its products.

Information on the safe use

PCI Nanolight 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/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.

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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zertifiziertes Qualitätsmanagementssystem

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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