

Multi use flexible tile adhesive

PCI Nanolight

PCI Nanolight has been audited in accordance with EN12004 and complies with the Euro Norm C2FTE

FIELDS OF APPLICATION

- For indoor and outdoor use.
- For walls and floors.
- **For all substrates:** cementitious screeds, ground anhydrite and/or gypsum based floated screeds, concrete, precast concrete elements, aerated concrete, heated screeds, plaster boards, gypsum fibre boards, dry screeds, magnesite screeds, mastic asphalt (only indoors), insulation boards, plaster slabs, plaster, render and metal substrates (indoors only).
- For all ceramic coverings laid in thin or medium bed:
Suitable for all types of porcelain, ceramic, glass, fully vitrified and mosaic tiles.
- To lay tiles and flags on the supporting elements PCI Pécidur made of high resistance foam, on the separation board PCI Polysilent, on the impact sound insulation PCI Polysilent plus.
- To lay tiles and flags on bonded waterproofing such as PCI Lastogum X (e.g. private bathrooms), PCI Seccoral 2K (e.g. swimming pools and terraces).

- To repair and level uneven wall and floor surfaces (e.g. masonry, render, screed) prior to laying tiles and flags.

FEATURES AND BENEFITS

- Unique light filler combination incorporating the Nano technology.
- High yield due to use of special additives and a unique filler combination.
- Plastic mortar providing good workability, mortar can be easily applied by trowel.
- Low shrinkage during the curing phase, the mortar can be applied up to a thickness of 15 mm in thin-bed and medium-bed method.
- Fast curing, but still approx. 90 minutes working time and long open time.
- Non sag, therefore easy and quick application.
- Flexible, compensates elongations of the substrate caused by variations in temperature.
- Low in chromates.

TECHNICAL DATA

Application

Consumption	approx. 0.9 kg of dry powder/m ² and mm thickness of adhesive bed
Colour	grey
Yield* required notch size:	15 kg PCI Nanolight is sufficient for approx.
- 4 mm	16.6 m ²
- 6 mm	11.5 m ²
- 8 mm	8.3 m ²
- 10 mm	7.1 m ²
Thickness of adhesive bed	from 1 to 15 mm
Working temperature	+5°C to +25°C
Gauging water for - 1 kg powder	approx. 600 ml
- 15 kg bag	approx. 9 litres
Slake time	approx. 3 minutes
Working time**	approx. 90 minutes
Open time**	approx. 30 minutes
Curing times** (on slightly absorbent substrates)	
- walkable after	approx. 5 hours
- groutable after	approx. 5 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 or vitrified tiles on render or cement screed.


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

TECHNICAL DATA

Material

Material base	dry mortar mix with a special filler combination
Labelling for	
- Regulation for hazardous goods on roads	non hazardous
- Regulation for hazardous substances	irritating, contains cement
<i>For further information refer to paragraph Safety.</i>	
Storage	cool and dry
Shelf life	approx. 12 months
Packaging	15 kg PE lined heavy-duty paper bag

SUBSTRATE PREPARATION

 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 sound, clean and able to bear weight. Oil stains, bond inhibiting material and other residues must be thoroughly removed.

For the installation of ceramic tiles the substrate must be plumb and flush to comply to the relevant section of BS 5385-3. Prior to the installation with PCI Nanolight (up to 15mm) or alternatively with PCI Polycrret 5/20, PCI Pericret or PCI Periplan to level substrate irregularities on walls and/or on floors. Level timber floors with PCI Periplan Extra before covering them.

Screeds on separation or insulation layers tend to deform due to non-uniform dehydration (concave arching). To avoid excessive lowering of the edge at a later stage please contact the PCI Technical Help-line prior to levelling or tiling. Prime very absorbent cement based substrates and aerated concrete with PCI Primer G, diluted 1 : 1 with water. Ground anhydrite and/or gypsum based floated screeds as well as gypsum based substrates and poured asphalt screeds inside of buildings with undiluted PCI Primer G.

Prime magnesite screeds with PCI Primer 404, diluted 1:1 with water.

Mineral substrates which must be prepared under pressure of time should be primed with PCI Gisogrund Rapid.

Old PVC coverings must firmly adhere to the substrate, any contamination such as grease etc. must be removed and the bond area sanded and primed with PCI Primer 303.

Metallic substrates indoors such as steel, 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 preservatives. Prime metal with PCI Primer 303.

Allow primers to dry.

Newly-laid cement screeds must not have a residual moisture content of more than 4%, anhydrite and/or gypsum based screeds not more than 0.5% (measured with a CM meter).

APPLICATION

Mixing of mortar

- Place gauging water (see table) into a clean container and add powder while mixing with a suitable paddle attached to an electric drill until a plastic, lump-free mortar is achieved.
- Leave PCI Nanolight to stand for approx. 3 minutes, then remix briefly.
- Levelling irregularities in the substrate
- The mortar can be applied in the usual working method by float.
- Surface irregularities can be rectified by using a plasterer's straightedge.

- PCI Nanolight used as a levelling compound can be tiled on walls after approx. 5 hours, on floors after approx. 24 hours.
- Laying tiles
- Apply a thin scratch coat to the substrate using the straight edge of the trowel.
- Comb mortar onto the fresh scratch coat with the notched edge of a trowel. Apply the adhesive bed in one direction if possible and only use as much mortar as can be covered with tiles during the open time. Check the open time by touching the mortar with your fingertip.
- Position and align the tiles by slightly pushing them into the adhesive bed.

GROUTING

Product	joint width
PCI Groutfast Grey	3 -10 mm
PCI Groutfast White	1 - 3 mm
PCI Wall & Floor Grout	2 -18 mm
Camel Beige, Bahama Beige, Cement Grey No 31, Sandstone, Anthracite, Brown, Grey No 21 and Jasmine.	
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■ PCI Aquafug	Joint width 1 - 8 mm
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■ PCI Fast Track Grey Grout	joint width 3 - 20 mm
Colour: No 22 Sand grey	
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■ PCI Durafug NT	joint width 3 - 20 mm
Colour: No 31	
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■ PCI Epoxy Grout Dark Grey	3 - 15mm
■ PCI Epoxy Grout Light Grey	3 - 15 mm
■ PCI Epoxy Grout Black	3 - 15 mm
■ PCI Epoxy Grout White	3 - 15 mm
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Elastic joints

- Corner joints (floor/wall, wall/wall, wall/ceiling) and connection joints (fixtures/tiles, wood/tiles) should be sealed with the elastic sealants PCI Silcoferm S.
- Seal corner and connection joints in underwater areas with PCI Silcoferm VE.

PLEASE NOTE

- Do not apply at temperatures below +5°C and above +25°C and under extreme hot and windy conditions.
- The scratch coat of PCI Nanolight must have cured prior to laying tiles indoors on walls on existing ceramic coverings not being exposed to wetness.
- For the installation on existing ceramics **outdoors** or **when exposed to permanent water** (e.g. shower facilities etc.) apply the bonding agent PCI Polyhaft and let it cure.
- The instructions of the gypsum manufacturers must be followed in case of gypsum and gypsum based substrates. Prime with Primer G.
- The open time is reduced in case of absorbent substrates (recommendation: priming with PCI Primer G or PCI Gisogrund Rapid).
- Never add water or dry powder to a PCI Nanolight mix which has already begun to set.
- When laying floor coverings outdoors use either PCI Nanolight in the buttering/floating method or the pourable flooring mortars PCI Floorfast 20 or PCI Floorfast 20 Rapid.
- When laying glass mosaic in swimming pools only front-sided paper-faced or front-sided foil-faced glass mosaic should be used.
- Glass tiles with a reaction resin coating on the bottom side may only be laid with PCI Nanolight if the coating is alkali resistant.
- After laying mosaic tiles it is required to rake joints clean to a uniform depth to ensure proper, stainfree grouting afterwards. This also applies to front-sided paper-faced mosaic.

- Contaminated tools and ceramic should be cleaned with water immediately after use; once the product has cured it can only be removed by mechanical means.
- Store in cool, dry conditions. Open bags must be closed immediately after use.

NANO TECHNOLOGY

For years PCI Augsburg GmbH has 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 curing from the very first minute the formation of Nano structures in the hardened cement paste can be observed and affected. 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.

HEALTH AND SAFETY

Contains cement. Irritating to skin. Contact with moisture sets off an alkaline reaction which may cause skin irritation and/or caustic burns to mucous membranes (e.g. eyes). Risk of serious damage to eyes. Avoid contact with skin and eyes. Wear suitable protective gloves and eye/face protection. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, take off immediately all contaminated clothing and wash immediately with plenty of water and soap. Keep out of the reach of children. If swallowed seek medical advice and show container or label. Low in chromates according to TRGS613

For further information refer to the PCI Material Safety Data Sheet.



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