Pyrotek noise control
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PCI-NANOLIGHT

Multi-use tile adhesive for substrates and ceramic coverings

DESCRIPTION

PCI-Nanolight is a multi use tile adhesive for substrates and ceramic coverings.

RECOMMENDED FOR

- indoor and outdoor use
- walls and floors
- **substrates**: cementitious screeds, ground anhydrite and/or gypsum based floated screeds, concrete, aerated concrete, heated screeds, plasterboard, gypsum fibreboards, dry screeds, magnesite screeds, poured asphalt (only indoors), insulation boards, plaster slabs, plaster, render/gauged render, masonry, old ceramic coverings, sound wooden substrates (wooden chipboards, OSB boards etc), metal substrates (only indoors), firmly adhered PVC coverings.
- **ceramic coverings laid in thin bed or medium bed**: non-vitrified tiles, vitrified tiles, fully vitrified tiles, porcelain mosaic, glass mosaic, glass tiles, brick tiles and terracotta.
- on bonded waterproofing such as **PCI Lastogum X, Masterseal 556** and **PCI Seccoral 2K** (swimming pool terraces).
- to lay tiles on sound insulation **PCI Polysilent Plus.**
- to repair and level uneven wall and floor surfaces prior to laying tiles and flags.

FEATURES AND BENEFITS

- *unique light filler combination and 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 with a spatula or trowel*
- *low shrinkage during the curing phase, the mortar can be applied up to a thickness of 15mm in thin-bed and medium-bed method*
- *rapid curing, but still approximately 90 minutes working time and long open time*
- *non sag, therefore easy and quick application*
- *flexible, compensates changes in temperatures and elongations of the substrate*
- *low in chromates in compliance with TRGS 613*
- *meets the requirements of C2FTE according to DIN EN 12004, AS4992.1 2006*

SUBSTRATE PREPARATION

Minimum age of substrate - cement screed: 7 days; concrete: 28 days, ref AS2870 5.3.7 Note.

The substrate must be sound, clean and able to bear weight. Oil stains, bond inhibiting surfaces and other residues must be thoroughly removed. For the installation of ceramic tiles and flags the substrate must be flush.

For the installation outdoors the substrate must have a slope of at least 1.5%. Level substrate irregularities on walls and/or floors with **PCI Nanolight** (up to 15mm), **PCI Periplan Fein** or **Mastertop P-15**.

Prime very absorbent cement based substrates and aerated concrete with **PCI Gisogrund** or **Emaco 168 Primer**, diluted 1:1 and allow to dry. Ground anhydrite and/or gypsum based screeds with undiluted **PCI Gisogrund**. Prime mineral substrates with **PCI-Gisogrund Rapid** if time is a factor.

Prime old ceramic tiles with **PCI Gisogrund 303**.

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

Wooden chipboards may have a moisture content of maximum 10%. The wooden chipboard must be at least 25mm thick if applied to floors and at least 19mm if applied to walls. The chipboards must be screwed to the substructure at a distance between screws of maximum 40cm. The edge joint must be at least 8mm wide. The joints of the chipboards should be tongue and grooved and must be glued. Prime wooden chipboards in dry areas with **PCI-Gisogrund 303**, allow to dry, and then waterproof with **Lastogum X**.

Newly laid heated and unheated 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).

*Note: **PCI Nanolight** is not recommended to be used over polyurethane membranes*

APPLICATION

Mixing of mortar

1. 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.
2. Leave **PCI Nanolight** to stand for approximately 3 minutes then remix briefly.

Levelling irregularities in the substrate

1. The mortar can be applied in the usual working method by float. Small spallings 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 approximately 5 hours, on floors after approximately 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 with the notched edge of a trowel. Apply the adhesive bed in one direction if possible. Apply only as much mortar as can be covered with tiles during the open time. Check the open time by touching the mortar with your fingertip.
3. Position and align the tiles by slightly pushing them into the adhesive bed.

PCI-NANOLIGHT

GROUTING

Water-repellent grout - **PCI Aquafug** (from 1-4mm joint width). Colours: white, silver grey, basalt, grey, pergamon. **PCI Nanofug** Colours: beige, grey basalt, white, black, light grey.

Water-impermeable grout - **PCI Flexfug** (from 2-10mm joint width).

Cementitious grout highly resistant to mechanical stress - **PCI Durafug NT** (from 3-20mm joint width).

Chemical-resistant and water-impermeable grout - **PCI Schwimmbadfuge** (from 2-10mm joint width).

Elastic Joints - Seal corner and connection joints with the elastic sealants **Silikon E**

TECHNICAL DATA

Consumption	approx. 0.8kg of dry powder/m^2 and mm thickness of adhesive bed
Yield (guide only) required notch size: - 4mm - 6mm - 8mm - 10mm	15kg PCI-Nanolight is sufficient for approx. 16.6m^2 11.5m^2 8.3m^2 7.1m^2
Thickness of adhesive bed	from 1mm to 15mm
Working temperature	+5ºC to +25ºC
Gauging water per kg (15kg = 9 litres)	600mL approx.
Slake time	3 minutes approx.
Working time**	90 minutes approx.
Open time**	30 minutes approx.
Curing times** (on slightly absorbent substrates) - walkable after - groutable after - able to bear weight after	 5 hours approx. 5 hours approx. 24 hours approx.
Temperature resistance	-30ºC to +80ºC
Volotile Organic Compounds (VOC) – Test Method SCAQMD Method 304-91	12g/litre

*** At +23ºC and 50% relative humidity. Higher temperatures reduce, lower temperatures increase these times.*

NOTE

- Do not use at substrate temperatures below +5ºC or above +25ºC, or in extreme hot & windy conditions.
- When laying tiles on heated screeds, good tiling practice and local regulations must be followed.
- When using **PCI Nanolight** to lay ceramic tiles in swimming pools a curing time of minimum 7 days must be followed prior to filling pool with water.
- The instructions of the gypsum manufacturers must be followed in case of gypsum based substrates.
- The open time is reduced in case of absorbent substrates.
- Never add water or dry powder to a **PCI-Nanolight** mix that has already begun to set.
- When laying fully vitrified tiles on floors outdoors use **PCI-Nanolight** in the buttering/floating method or the pourable flooring mortar like **PCI Nanoflott Flex.**
- When laying glass mosaic in swimming pools only front-sided paper-faced or front-sided foil-faced glass mosaic should be used.
- After laying mosaic tiles rake joints clean to a uniform depth to ensure stain free grouting afterwards. This also applies to front-sided paper-faced mosaic.
- Use adhesives **PCI Carralight, PCI-Carraflex**, **PCI-Carraflott** or **PCI-Carrament** when fixing natural stone.

PACKAGING

PCI-Nanolight is available in 15kg PE lined heavy-duty paper bags.

CLEANING

Clean tools with water immediately after use. Hardened material can only be removed by mechanical means.

SHELF LIFE

Minimum 12 months if stored in a cool and dry location, not over +30°C.

PRECAUTIONS

PCI-Nanolight contains cement. Contact with moisture or gauging water sets off an alkaline reaction, which may cause skin irritation, and/or caustic burns (eg eyes). Avoid contact with eyes and prolonged skin contact. In case of eye contact thoroughly rinse with water and get prompt medical attention. In case of skin contact immediately change contaminated clothing and wash skin with plenty of soap and water. Wear suitable protective gloves. Keep out of reach of children. Low in chromates according to TRGS 613.

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