

Self-levelling isolating compound

# PCI Nanosilent<sup>®</sup>

**543**

for impact sound reducing levelling and isolating

## FIELDS OF APPLICATION

- For indoor use on floors.
- To level uneven, cracky substrates or substrates which tend to crack.
- To isolate suitable ceramic and natural stone tiles from the substrate.
- For the reduction of impact sound.
- For all substrates able to bear weight, e.g. concrete and cement screeds, gypsum-based screeds, anhydrite screeds, heated screeds, tightly screwed timber chipboards, solid timber floorboards, firmly adhering parquet etc.
- On green cement screeds (minimum quality CT F4) as soon as they are walkable and able to bear weight.
- Ceramic and natural stone coverings can be laid



PCI Nanosilent helps reduce the impact sound and isolate the substrate in one application.

directly onto the substrate reducing the impact sound; the construction height is relatively low.

- As levelling compound to create even surfaces with impact sound insulation for the renovation of old buildings.

## FEATURES AND BENEFITS

- **Substrate reducing tension** for ceramic and natural stone coverings.
- **Short installation times**, can be quickly re-used in renovation of old buildings.
- **Multi-purpose use**, secure solution to the problem for uneven substrates with cracks as well as on mixed substrates able to take loads.
- **Easy to apply**, efficient method to level irregularities in the substrate, to isolate the top covering as well as reduce the impact sound under ceramic and natural stone coverings in one application.
- **Impact sound reduction** at 10 mm layer thickness: approx. 11 dB.



## FEATURES AND BENEFITS

### ■ With test certificates:

- Reduction of impact sound according to DIN EN ISO 140-8, MFPA Leipzig.
  - Reduction of tensions, TU Munich.
  - Resistance against lumped loads, TU Munich.
  - Mechanical loading capacity, SFV Großburgwedel
- All test certificates (in German) are available under [www.pci-augsburg.de](http://www.pci-augsburg.de).

## TECHNICAL DATA

### MATERIAL

Material base	synthetic dry dispersion with cement fillers
Impact sound reduction	approx. 11 dB at 10 mm layer thickness
Thermal conductivity acc. to DIN EN 13664	0.224 W (m/K)
Labelling for	
- Regulation for hazardous goods on roads	non hazardous
- Regulation for hazardous substances	irritant, contains cement
<i>For further information refer to Health and Safety.</i>	
Packaging	15 kg heavy-duty paper bag
Shelf life	min. 12 months when stored in dry conditions, no permanent storage over +30°C

### APPLICATION

Consumption	approx. 1 kg of powder per m <sup>2</sup> and mm layer thickness
Mixing ratio	4.8 ltr of water per 15 kg unit for partial quantities: 320 ml of water per kg of PCI Nanosilent
Layer thickness	5 to 15 mm (partially up to max. 20 mm)
Working time*	approx. 45 minutes
Walkable/ready for further application after*	approx. 14 to 16 hours
Working temperature	+5°C to +25°C (substrate temperature)

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

## PREPARATION OF SUBSTRATE

- Suitable substrates are among others: screeds made of cement, asphalt, magnesite and anhydrite, concrete ceilings, old natural stone, artificial stone and ceramic, fibre reinforced plasterboards, firmly bonding parquet, tightly screwed timber chipboards, solid timber floorboards and steel. For use indoors.
- The substrates must be dry, able to bear weight and clean; remove oil stains, bond-inhibiting surfaces and contamination very thoroughly. Proper priming of absorbent substrates is necessary to avoid formation of blowholes by rising air.
- Prime cementitious substrates with PCI Gisogrund, diluted 1:1 with water, or with undiluted PCI Gisogrund Rapid. Prime gypsum-based substrates with undiluted PCI Gisogrund or with undiluted PCI Gisogrund Rapid.
- Prime old ceramic or natural stone with PCI Gisogrund 303.
- Prime firmly bonding, ground parquet substrates and tightly screwed wooden chipboards with PCI Gisogrund 404, diluted 1:1 with water, two layers are necessary.
- Timber floorboards and steel substrates should be ground and primed in two layers with PCI Epoxigrund 390. The first layer must cure for at least 8 hours; the second layer must be spread with fire-dried silica sand (grade 0.3 to 0.8 mm, consumption approx. 500 g/m<sup>2</sup>) while still fresh. Allow primer to dry.

## APPLICATION PROCEDURE

- 1 Place gauging water in an appropriate mixing container, add PCI Nanosilent and mix with a suitable paddle (e.g. from Collomix) for at least 3 minutes until lump-free.
- 2 Pour mixed PCI Nanosilent to the substrate, spread with a surface scraper or trowel and de-aerate with a spiked roller.
- 3 When PCI Nanosilent has cured ceramic and natural stone can be directly laid without any further preparations.

### Suitable PCI bedding mortars for ceramic and natural stone:

- PCI Carraflott NT
- PCI Carraflex
- PCI Carralight
- PCI Carrament
- PCI Flexmörtel
- PCI Flexmörtel-Schnell
- PCI Midiment in combination with PCI Lastoflex
- PCI Nanolight
- PCI Nanoflott

- PCI PCI Rapidflott
- PCI Rapidlight

### Grouting material

- PCI Flexfug
- PCI Nanofug
- PCI Rapidfug
- PCI Durapox NT / NT plus
- PCI Carrafug

Movement and connection joints in ceramic coverings are closed with the elastic joint sealant PCI Silcoferm S, in natural stone coverings with PCI Carraferm.



PCI Nanosilent is poured on to the substrate...



spread to the required thickness with a suitable surface scraper...



and de-aerated with a spiked roller.

## PLEASE NOTE

- Please observe the respective technical data sheets when working with PCI products.
- To prevent damages due to dynamic or static loads of the covering on isolation systems tiles made of ceramic or natural stone must have a minimum tensile strength of 1,000 N for domestic use (e.g. fully vitrified tile, 6.5 mm thick, format 30 x 30) or a minimum tensile strength of 1,500 N (e.g. fully vitrified tile, 8 mm thick, format 30 x 30). Contact the manufacturer or supplier of the covering material for detailed information.
- In general a practically void-free laying is necessary for ceramic and natural stone tiles on isolating systems. It is therefore recommended to lay tiles in the combined method (buttering-floating) and/or to use flowable mortars (e.g. PCI Nanoflott, PCI Rapidflott or PCI Carraflott NT).
- Additional underfloor heating systems (e.g. by AEG, Halmburger, Jollytherm, DEVI, Siemens etc.) are laid on PCI Nanosilent.
- When using PCI Nanosilent in wet rooms it is necessary to apply a bonded waterproofing with PCI Seccoral 1K/2K, tested in accordance with the ZDB leaflet "Bonded waterproofing", before laying tiles.
- PCI Nanosilent is unsuitable to bridge movement joints; they must be adapted congruent with the top covering.
- Shelf life: min. 12 months when stored in dry conditions, no permanent storage over +30°C.

**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.**

**HEALTH AND SAFETY** ■ PCI Nanosilent contains cement. Contact with moisture or gauging water 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, therefore avoid contact with eyes and prolonged contact with skin. In case of contact with eyes immediately rinse with plenty of water and consult a doctor. In case of contact with skin change contaminated clothing immediately and wash skin with plenty of soap and water. Wear suitable protective gloves (e.g. cotton gloves soaked in nitrile) and safety goggles/face mask. Keep out of reach of children.  
Low in chromates.

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

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In view of widely varying site conditions and fields of application of our products this 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 data sheet under "Fields of Application". Use of the product beyond the fields of application as stated in the data sheet without previous consultation with PCI and possible resulting damages are in the sole responsibility of a customer. 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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