

# PROJECT REPORT

Augsburg, June 9, 2022

Sustainable and fast floor refurbishment in the Löffingen secondary school with PCI products

## A good basis for education

When around 300 students storm their school building, the ground has to be in good condition. This posed a particular challenge during the refurbishment of the Löffingen secondary school. The dilapidated substrate required a reliable solution that also promised fast construction progress. PCI provided the recommendation with the appropriate products. This made it possible to work on the cracked screed and avoid the costly dismantling.

During the 2020 summer holidays, the complete refurbishment of the Löffingen secondary school in the Breisgau-Hochschwarzwald district began. The building should again be available for business in the coming school year. Until then, school life takes place in the former secondary school, built in 2003, right next door. The refurbishment of the old building was delayed due to some unforeseen problems. Work on the new flooring could start in autumn 2021. This was not so easy in view of the critical substrates. The question was: remove the old screed and install a new one? Or is there a less complex and quicker way to prepare the critical substrate for the subsequent carpet installation?

### Good from experience

The commissioned A. Chini GmbH & Co. KG in Freudenstadt contacted PCI in advance. Family-run since 1913, the master company for tiling and floor construction has been processing building materials from the Augsburg manufacturer since PCI was founded, i.e. for more than 70 years. Managing Director Alexander Chini, who is the third generation to run the company, appreciates the long-standing collaboration with PCI specialist adviser

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Andreas Herzog: “I asked Andreas Herzog for advice on this project, and as always it was very helpful. We implemented the installation recommendation made by PCI application technology. That was good advice for us. With the PCI solution, we were able to professionally refurbish the substrate on around 2,200 m<sup>2</sup> without first removing the screed.” On a further 900 m<sup>2</sup>, there was nothing left but to dismantle the completely broken screed. The craftsmen created the new one with PCI Novoment Z3 which has a particularly high dimensional stability. The quick-setting screed can be walked on after just one day and covered with tiles after three days.

### **Glass fiber reinforced bonded floor leveling**

The challenge with the remaining screed was its weak condition with poor adhesion values and numerous cracks. The structure had to create a reinforcing, load-distributing floor. To do this, the craftsmen first primed the screed with PCI Gisogrund 404. The solvent-free and very low-emission special primer achieves a secure adhesion for the subsequent floor leveling with high bond strength. To avoid sound bridges, the craftsmen attached the self-adhesive edge insulation strips PCI Pecitape Silent in the transition areas from floor to wall before installing the leveling compound.

The critical substrate required a bonded floor leveler. The craftsmen used the glass fiber reinforcement PCI Armiermatte GFM. This strengthens the leveling compound and increases its tensile and flexural strength. The reinforcement mat, which is to be applied loosely, is suitable for substrates with cracks up to a width of approx. 3 mm with minor movements to be expected. The uncomplicated and quick installation of the glass fiber reinforcement is particularly practical as well as the high application security. The glass fibers which are initially held together in mat form by a special binding agent, can be easily cut to the room dimensions and laid out on the primed and dried substrate with an overlap of around 1 cm. This is followed by the flowable floor leveling compound which covers the

reinforcement fibers. They remain highly concentrated in the lower leveling layer and have a planar effect in all horizontal directions.

**In terms of sustainability: PCI Periplan Extra**

PCI Periplan Extra was used for floor leveling. The fiber-reinforced special leveler is particularly suitable for critical substrates and layer thicknesses of 3 to 60 mm. PCI Periplan Extra runs easily and can therefore be processed without effort, even using the pump method. On the fast construction site, the leveler scores with rapid hardening: the floor can be walked on after around three hours at +23 °C and 50% relative humidity. In addition, PCI Periplan Extra meets the highest requirements in terms of occupational safety, indoor air quality and environmental compatibility: the leveling compound is low in dust and, like the primer used, very low in emissions according to GEV-EMICODE EC 1 PLUS.

Alexander Chini's team of four to five employees created the structure of the substrate in less than four weeks. Industrial carpeting was laid on top. "All products worked perfectly," sums up the managing director. "The system consisting of PCI Periplan Extra and PCI Armiermatte GFM is ideal for refurbishment work with its low installation height and guarantees fast construction progress. We also meet the requirements for healthy living with primer and floor leveling compound."

## Object data

Project	Floor refurbishment in the Löffingen secondary school with PCI products
City:	Löffingen
Size:	approx. 2,500 m <sup>2</sup>
Completion:	2022
Task:	Preparing the substrate for a cracked, weak screed with bonded floor leveler for the subsequent carpet laying
Products used:	PCI Gisogrund 404, PCI Pecitape Silent, PCI Periplan Extra, PCI Armiermatte GFM, PCI Novoment Z3
Company:	A. Chini GmbH & Co. KG, Freudenstadt
PCI specialist adviser:	Andreas Herzog, Jan Faschian
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## Images



Complete refurbishment of the Löffingen secondary school: With the recommendation from PCI and the appropriate PCI products, the floor was laid on a critical substrate without dismantling the dilapidated screed.  
([Link to the high-resolution Photo](#))



After priming with PCI Gisogrund 404, the craftsmen laid out the glass fiber reinforcement PCI Armiermatte GFM and spread the special leveler PCI Periplan Extra on top.  
([Link to the high-resolution Photo](#))



*Reliable floor structure: glass fiber reinforced bonded floor leveling with PCI Amiermatte GFM and PCI Periplan Extra (link to the high-resolution [Photo](#))*



*Easy processing, fast construction progress: PCI Periplan Extra is self-leveling and can be walked on after around three hours. (Link to the high-resolution [Photo](#))*



The low-dust and very low-emission floor leveler PCI Periplan Extra is suitable for layer thicknesses of 3 - 60 mm. (Link to the high-resolution [Photo](#))



PCI specialist adviser Andreas Herzog on the construction site in Löffingen with site manager Torsten Sebrein and employees Kazim Yalcin and Gyuhan Sergeev Atanasov from A. Chini GmbH (from left to right) (Link to the high-resolution [Photo](#))

**About PCI**

*PCI Augsburg GmbH is part of MBCC Group and leader in the tile laying materials sector for specialist firms in Germany, Austria and Switzerland. In addition, the company supplies product systems for waterproofing, concrete protection and repair, as well as a complete product range for the flooring sector. The PCI Group employs a staff of more than 1,200 in Europe and generated sales of significantly over €350 million net in 2021. Further information about PCI on the Internet under [www.pci-augsburg.de](http://www.pci-augsburg.de).*

**About MBCC Group**

*The MBCC Group is one of the leading suppliers of construction chemicals and solutions worldwide and has emerged from the carve-out of the former BASF Construction Chemicals business from BASF Group. We offer innovative and sustainable products and solutions for the construction industry across different sectors, such as buildings, structures, underground construction, new construction, as well as for renovation. Our strong brands Master Builders Solutions®, PCI®, Thermotek®, Wolman®, Fire Protectors®, Colorbiotics®, Watson Bowman Acme®, TPH®, Bluey® and Nautec™ are well established in the marketplace. With our innovations, we address sustainability challenges in the industry. MBCC Group consists of approximately 70 legal entities worldwide and is home to around 7,500 construction experts in over 60 countries.*

*For more information go to: [www.mbcc-group.com](http://www.mbcc-group.com).*

*We build sustainable performance.*

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