# Reference project



Augsburg, 6 March 2019

"Die Wälderin" hotel in Mellau: PCI provides support for laying 9,000 square metres of tiles and glass mosaics

## The challenge of waterproofing

With its hotel "Die Wälderin", the Frick family has ushered in a new era of accommodation in Mellau. The building is the largest newly constructed hotel facility in the Bregenzerwald district of Austria. In the 114 guest rooms and the 2,500 square metre wellness area with swimming pools and saunas, quests can expect authentic hospitality and a relaxed atmosphere with a modern design. The optical highlights are three swimming pools tiled with glass mosaics. Apart from an attractive appearance, the owner placed considerable value on functionality and insisted on an absolutely waterproof pool design.

#### 9,000 square metres of tiles

The area to be covered with tiles and glass mosaics was certainly impressive: fully vitrified tiles were to be laid in the hotel bathrooms, with an area of 4,000 square metres, while glazed vitrified tiles and fully vitrified tiles were to be laid in kitchens, ancillary and common rooms, with an area of about 2,000 square metres, as well as more than 3,000 square metres of tiling in the pool and wellness area.

For the three swimming pools, the owner selected glass mosaics in various shades of blue. The pools were to be waterproofed using waterproof concrete with appropriate additives. For additional safety, a second waterproofing layer of flexible waterproofing slurry was to be



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installed. This compensates for the shrinkage of the concrete and avoids possible calcium carbonate efflorescence on the concrete surface right from the start.

### Reliable waterproofing with PCI Seccoral 2K Rapid

In line with the waterproofing recommendations given by PCI, the contractor first prepared the substrate and then applied PCI Seccoral 2K Rapid as the second waterproofing layer. This fast-setting slurry is water-tight and crack-bridging, even in the case of later cracks in the substrate. The isolating and stress-reducing properties as well as the crack-free hardening of the slurry provide additional security. The creamy consistency of the product makes for fast and easy working. PCI Seccoral 2K Rapid – with very low odour and very low emissions in accordance with GEV-EMICODE EC1 PLUS R – is easy to apply using brushes or trowels and offers a relatively long skin formation time despite its short setting time. The tilers used PCI Pecitape collars as well as inside and outside corners at critical points such as outlets and transitions. To provide additional protection for the waterproofing layer, PCI Pecitape Protect cut protection tape was also applied.

One of the more difficult tasks was to provide the many inserted components with flanges made from PCI Durapox NT plus reaction resin mortar and then to integrate the components into the waterproofing layer. The whirlpool proved to be especially difficult and involved a considerable amount of work as a result of the 30 components to be integrated. Finally, a tightness test was carried out and completed suc-



cessfully. The glass mosaic tiles could be laid in the three pools with a total area of 800 square metres.

### Premium joint grout for glass mosaics

In view of the severe exposure to moisture on the underwater section, absolutely safe tiling calls for the use of a reaction resin adhesive. The contractors used PCI Durapox NT for laying and PCI Durapox Premium for grouting. The extremely intensive colours and homogeneous surface of the innovative epoxy resin joint grout convinced the owner. The joint is extremely strong and is not affected by chemical additives in the pool water. The tilers were also convinced by the convenient application of the product. Thanks to its creamy consistency, PCI Durapox Premium is as easy to apply as a cementitious grout. Contractors only need the usual tools which they would use for cementitious joints, such as a rubber grouting float and a standard sponge float.

All the work was completed to schedule. As planned, hotelier Herbert Frick opened "Die Wälderin" in September 2018 following 18 months of construction, with an investment of about €28 million.



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## **Project data**

Project title:	The challenge of waterproofing
Subtitle:	"Die Wälderin" hotel in Mellau: PCI provides support for laying 9,000 square metres of tiles and glass mosaics
Location:	Mellau, Austria
Completion year:	2018
Objective:	Substrate preparation, waterproofing, laying and grouting of tiles and glass mosaics in the pool and wellness area, the kitchen and the bathrooms of the hotel
Project size:	About 9,000 m <sup>2</sup>
Products used:	PCI Apogel Dübel, PCI Apogel SH, PCI Apoten, PCI Carrament, PCI Durafug NT, PCI Durapox NT plus, PCI Durapox Premium, PCI Epoxigrund 390, PCI Epoxigrund Rapid, PCI Flexmörtel S2, PCI Gisogrund 303, PCI Gisogrund, PCI Megafug, PCI Novoment M1 Plus, PCI Pecitape, PCI Pecitape Protect, PCI Pericret, PCI Quarzsand BCS 412, PCI Repahaft, PCI Seccoral 1K, PCI Seccoral 2K Rapid
Architect:	ARGE Frick+Winkler+ArchMP Architekten
Project owner	FBV Hotel GmbH, Reuthe
Contractor:	Fliesenpool GmbH, Nenzing  Meusburger Fliesen & Naturstein GmbH, Bezau  Moosbrugger Fliesen- und Naturstein GmbH, Au
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**Registergericht** Amtsgericht Augsburg, HRB 6355 USt.-IdNr. DE11143409



#### Photos:



Fig. 1: A major construction site in Mellau: the hotel "Die Wälderin" with about 250 beds and a spacious wellness area. The owner, the architect and the contractor Fliesenpool GmbH in Nenzing opted for PCI Augsburg GmbH as their construction materials partner for tiling and mosaic laying. The leading manufacturer of construction chemical products supplied the appropriate products as well as providing advice and support during construction.





Fig. 2: The three swimming pools were constructed using waterproof concrete with appropriate additives and equipped with a second waterproofing layer of PCI Seccoral 2K Rapid. The fast-setting waterproofing slurry offers durable security and waterproofing thanks to its crack-free hardening and its isolating and stress-reducing properties.





Fig. 3 (without flange)





Fig. 4 (with flange)

Fig. 3 and Fig. 4:

Initially, waterproofing with PCI Seccoral 2K Rapid posed a challenge for the contractor: a flange of reactive resin mortar had to be applied to each component. A waterproofing collar was then installed and the flange was integrated into the waterproofing.





Fig. 5: The craftsmen used PCI Pecitape to seal critical points such as connections.





Fig. 6: The waterproofing of the whirlpool proved to be especially complex. About 30 components had to be integrated into the waterproofing.



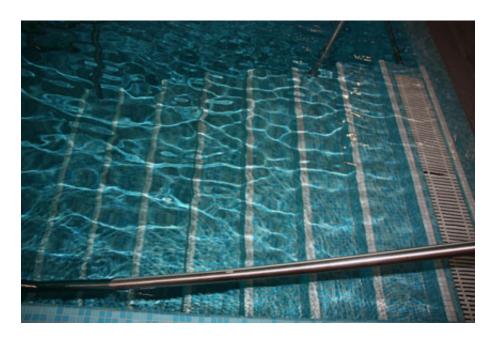
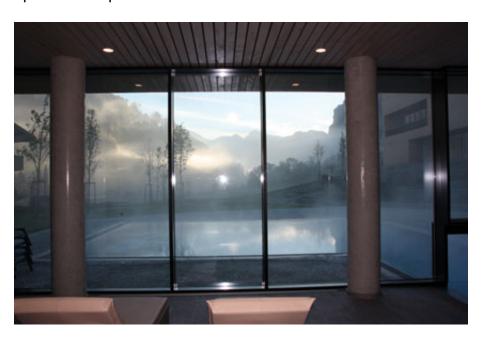


Fig. 7: The high-quality glass mosaic was laid using PCI Durapox NT reaction resin mortar and then grouted with PCI Durapox Premium. The innovative epoxy resin joint grout features extremely intensive colours and a homogeneous surface. The joint is also extremely strong and is not affected by detergents. Thanks to its creamy consistency, PCI Durapox Premium is as easy to apply as a cementitious grout.





Fig. 8 and Fig. 9: Following 18 months of construction with an investment of about €28 million, the modern hotel "Die Wälderin" in Mellau opened in September 2018.



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Fig. 10 and Fig. 11: The wellness area with three swimming pools and various saunas allows guests to relax in an area of over 2,500 square metres.



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#### **About PCI**

PCI Augsburg GmbH is part of the business unit Construction Chemicals of BASF 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 over €300 million net in 2017. Further information about PCI on the Internet under www.pci-augsburg.de.

#### About BASF

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. The approximately 115,000 employees in the BASF Group work on contributing to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio is organized into five segments: Chemicals, Performance Products, Functional Materials & Solutions, Agricultural Solutions and Oil & Gas. BASF generated sales of more than €64.5 billion in 2017. BASF shares are traded on the stock exchanges in Frankfurt (BAS), London (BFA) and Zurich (AN). Further information at www.basf.com.

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