

“My home in Walldorf”

Project of 44 newly built terraced houses in Walldorf, Germany

The Epple company group has built 44 concrete terraced houses in the new development area “Walldorf-Süd”. (Figure 1) In order to keep costs and construction time as low as possible, the whole wall and floor structure were built with prefabricated concrete parts. The tiling areas for wall and floor tiles consisted of evenly formed concrete not older than three months except for two drywalls in the bathrooms. The Wiesloch-Baiertal based company “Fliesen und Natursteine Laier” was contracted for the tiling work.

In order to keep a tight development schedule and, consequently, to guarantee a prompt progression of the tiling work, PCI Augsburg GmbH has established a tiling recommendation for the trade “tiling”, which leads to the following job sequences:

The concrete surfaces to be tiled on walls and floors (Figures 2 and 3.) were sanded with a diamond cup wheel in order to achieve a clean, non-slip and sustainable sub-floor.

PCI GISOGRUND was used for priming the sub-floors. (Figure 4) The concrete surfaces were primed twice with 1:1 water thinned PCI GISOGROUND, whereas undiluted PCI GISOGRUND was applied in single paint action to the drywalls plasterboard surfaces.

The waterproofing on the splash water walls of the bathrooms was achieved with PCI LASTOGUM with inlaying of PCI PECITAPE in the corner regions.

In order to ensure trouble-free tiling of the fresh concrete walls, PCI BICOLLIT LIGHT was used, whereas PCI FT EXTRA, the flexibilised tile adhesive, was the appropriate product for the drywalls.

The butt joints on the concrete floor sections were grouted over the whole area with PCI PERICRET. (Figure 5)

In order to offset the unfavourable properties of the fresh concrete floor (shrinking and dampness), the specialists opted for PCI PECILASTIC U, the universal de-coupling panel. The purpose was to eliminate cracks in the tiling caused by subsequent joint area movements of the concrete floor slabs. In addition, the impact noise insulation feature of the de-coupling panel was appreciated, since it accounts for approx. 8 dB noise abatement. Such enhancement was indeed welcome, given that the building's structural design had not allowed at all for footfall sound insulation to be fitted on the floor level.

The de-coupling panel PCI PECILASTIC U was bonded onto the sub-floor with the quick-acting flow bed mortar PCI RAPIDFLOTT. The subsequent tiling was then achieved with PCI FT EXTRA.

PCI NANOFUG was used for grouting the wall and floor areas, and PCI SILICOFERN S served for sealing the elastic joints.

Hereunder the progress report on the building of the houses, which again highlights the short construction period.

Such challenging requirements could be met thanks to the floor laying products provided by PCI Augsburg GmbH.

May 2011

Preparatory development for our preisWERThäuser [costEFFICIENThouses] is finished so that work on the ground floor can start.

July 2011

Bare brickwork is completed.

July-October 2011

The completion of the interior is in full swing. The wiring and laying of hot and cold water pipes is to be implemented now along with many other trades.

November 2011

The houses of the first construction phase have been completed and are committed.

December 2011

Construction of the floor slab for the second phase!