

Property	Core refurbishment of a Düsseldorf villa
Date	June 2010
Location	Düsseldorf
Execution	2010
The task	Core refurbishment of the bathroom with high-quality marble
Area size	Bathroom: Wall covering: 19.60 m ² Floor covering: 19.05 m ²
Products used	PCI Gisogrund, PCI Rapidlight, PCI Lastogum, PCI Pecitape WS, PCI Pecitape 10x10 cm, PCI Seccoral 1K, PCI Carrament grey, PCI Carrafug, No. 22, sand grey, PCI Carraferm, PCI DIN Polyband, PCI Glättmittel (smoothing agent)
Planners	Architect Dipl.-Ing. Philipp van Noppen
Company	Johannes van Noppen (Master craftsman - Tiling, paving and mosaic specialist)
Technical consultants	Hermann Gajowczyk, Stefan Marx

Exclusive natural stone, perfectly finished

Transforming a block of natural stone into the perfect design to create an individual oasis of well-being

As part of the core refurbishment of a Düsseldorf villa built in 1927, one of the areas the owners decided to redesign was the bathroom. They chose natural stone for the wet areas, walls and floor, thereby creating a personal oasis of well-being using exclusive stone intricately finished to striking effect. In collaboration with the architect the owner turned his dream of a marble bathtub into reality. He designed an extraordinary form for a solid bathtub and wash basin, made from a raw block of high-quality Covelano marble. The choice of material for the new bathroom equipment was particularly challenging in terms of the structural analysis of the villa. Due to the high specific weight of the really dense marble, a new concrete floor, which was capable of withstanding very high loads in certain areas, had to be laid especially for the new bathroom equipment. In addition a warm water underfloor heating system and an electrical heating mat in the wall were also planned. To ensure perfect waterproofing of the substrate for the underfloor heating laid in copper tubes, the building specialists used a system of isolating mats. The natural stone tiles

were subsequently laid using the medium-bed mortar PCI Carrament grey. Before the heating mat was laid in the wall area the substrate had to be solid, dry, load-bearing and even. The surfaces were therefore plastered using PCI Nanocret R2 repair mortar. The well-bonding protective primer PCI Gisogrund was then applied. The specialists used PCI Rapidlight to cover the electrical heating vertically, and the substrate was waterproofed using the flexible dispersion waterproofing PCI Lastogum. The self-adhesive waterproofing tape PCI Pecitape WS and the protective waterproofing PCI Pecitape 10 x 10 were used in the floor-to-wall joints and around the installation connection points, ensuring all joints remain watertight. Fixing anchors were also positioned in the top section of the wall tiles in the shower area, as the tiles are 2.80 m high. The fixing anchors were waterproofed using the flexible, waterproof protective coating PCI Lastogum and special dowels. They were thus able to ensure and enhance the safe bonding performance of the natural stone mortar. To lay the shell limestone tiles the specialists used PCI Carrament grey, a medium-bed mortar which is perfect for natural stone coverings. They then filled the space between the large-format tiles with PCI Carrafug, which is ideally suited for laying natural stone tiles and suitable for use with the mortar. The connection and movement joints were sealed using PCI Carraferm silicone. The solid marble elements were then bolted to the wall and floor using stainless steel anchors.