

PCT

With Retanol on the home stretch

A short timed construction period, 2,900 square metres on two floors, therefrom a 1,100 square metres large showroom with a shop window with a length of 85 metres – these are the key data of Europe's most modern Opel car dealer which will open in the state capital of Hesse this november. The first spadeful of earth of the Mega Opel car dealer at the Mainzer Straße 140 in Wiesbaden was carried out by Opel CEO Nick Reilly and the Investor Shariar Pirzadeh on march 31st 2010. The opening of the 4.5 million project is scheduled for december. To be able to stick with the scheduled building period and to guarantee extremely loadable floors with high strengths, those responsible decided to choose Retanol screed made by PCT Performance Chemicals GmbH.

Of course, with such a prestigious project the floor has to be special, too. That's why building owner Pirzadeh, who already owns a large car dealer in Wiesbaden, attaches importance to highest perfection and cleanliness. So the successful entrepreneur decided with the architect's office Fischer, Kuhn, Partner from the palatine Ransbach-Baumbach, to use large-scale white tiles for the showroom as well as the garage. The strikingly design tiles are measuring 1.2 metres to 60 centimetres in size. For the commissioned screeding company IBR Estrich Putz this meant that they had to work very precisely. Because even the smallest surface irregularities during the installation could lead to a cracking of the ceramic floor. These have not been the only challenges. The whole salesroom is equipped with a Low Temperature Underfloor Heating System. That means the screed has to be laid floated and has to withstand extreme loads at the same time. So in the end the floor construction has to absorb the weight of the Opel cars durably. The requirements of the screed have been accordingly ambitious. With an installation height of 85 millimetres the screed should resist 7.5 KN. That corresponds to a weight of 750 KG per sqm or the strength category CT C 35 F6. At the same time the building owner and the architect did not want to accept long drying periods. „It was simply unthinkable to stop working for two to three months to let the screed drying “, planner Jürgen Kuhn reported. „We wanted to emphasize the capability of Opel by showing them that we would be able to complete a state-of-the-art car dealer in a very short time frame. That's why we decided to choose a screed to play it safe.“

To meet these requirements a special screed had to be used. After consultation with the screed layer those responsible decided to use the screed Retanol Rapid EKA made

by PCT. Retanol screeds are high performance tension free cementitious screeds with low shrinkage. Subject to the chosen dosage Retanol Rapid EKA is already workable after 5 days. As a high technology product Retanol screeds offer maximum quality, very good processing properties and a very high laying performance. Due to his low air pore content the screed shows a very good strength and a very good thermal conductivity so that it is not only firm but also energy-saving. At the Mainzer Straße 140 those responsible decided for a dosage of the quickscreed-additive Retanol which would guarantee a workability after just 14 days. On October 26th employees of IBR have laid the screed, on November 9th the CM-measurement resulted with a value of 2.2 CM % on average, so that the floor layer could start with his work. To manage and control the drying process with the underfloor heating system, PCT places a heat-up journal at the heating engineer's disposal. In this case the heating had to be increased up to 25° Celsius for one day at first which was followed by two days of maximum temperature. After that the temperature had to be lowered to 25° Celsius again. To stick with this heat-up plan is very important, so the screed will not get any tensions with the top surface. The whole process will be written down in a heating journal and afterwards handed over and countersigned. „Through the quick drying time of the screed the construction period could be lowered dramatically and therefore clear economical savings were the result“, architect Kuhn explains.

The challenges were even extremer with the approx. 300 sqm tall garage of the car temple. Here the white tiled floor has to withstand a load of ten KN which means 1,000 kg per sqm. „Such enormous strengths are not possible with a regular screed, so we have to use high-performance special products“, screed layer master Fritz Eberle explains who also supervised the craft as a consulting partner of PCT. So in the end inside the garage Retanol Xtreme was used. This high performance screed offers first-class results wherever high final strengths are needed quickly and in the industrial field for example. Excellent processing properties, a high laying performance as well as the guarantee for a precise workability and the desired strengths are further benefits. In the car dealership Delta Automobile in Wiesbaden we had the target that the 80 mm thick screed should be workable within 8 days and that it should reach the strength category CT-C45-F7. With our Retanol screed we crossed the finish line with success, so that the scheduled opening of the Opel car dealership at the Wiesbadener car mile could take place.

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