

# Range of colours

## Façade made from high-quality architectural concrete in seven colour tones

It could almost be imagined that August Macke or some other painter from the era of expressionism or cubism had participated in creating the façade for this electronic supermarket in Fürth, Bavaria, Germany. Precast made from architectural concrete lend the building an impression of decent elegance causing it to stand out agreeably against the steel and glass boxes of other supermarkets in this sector.

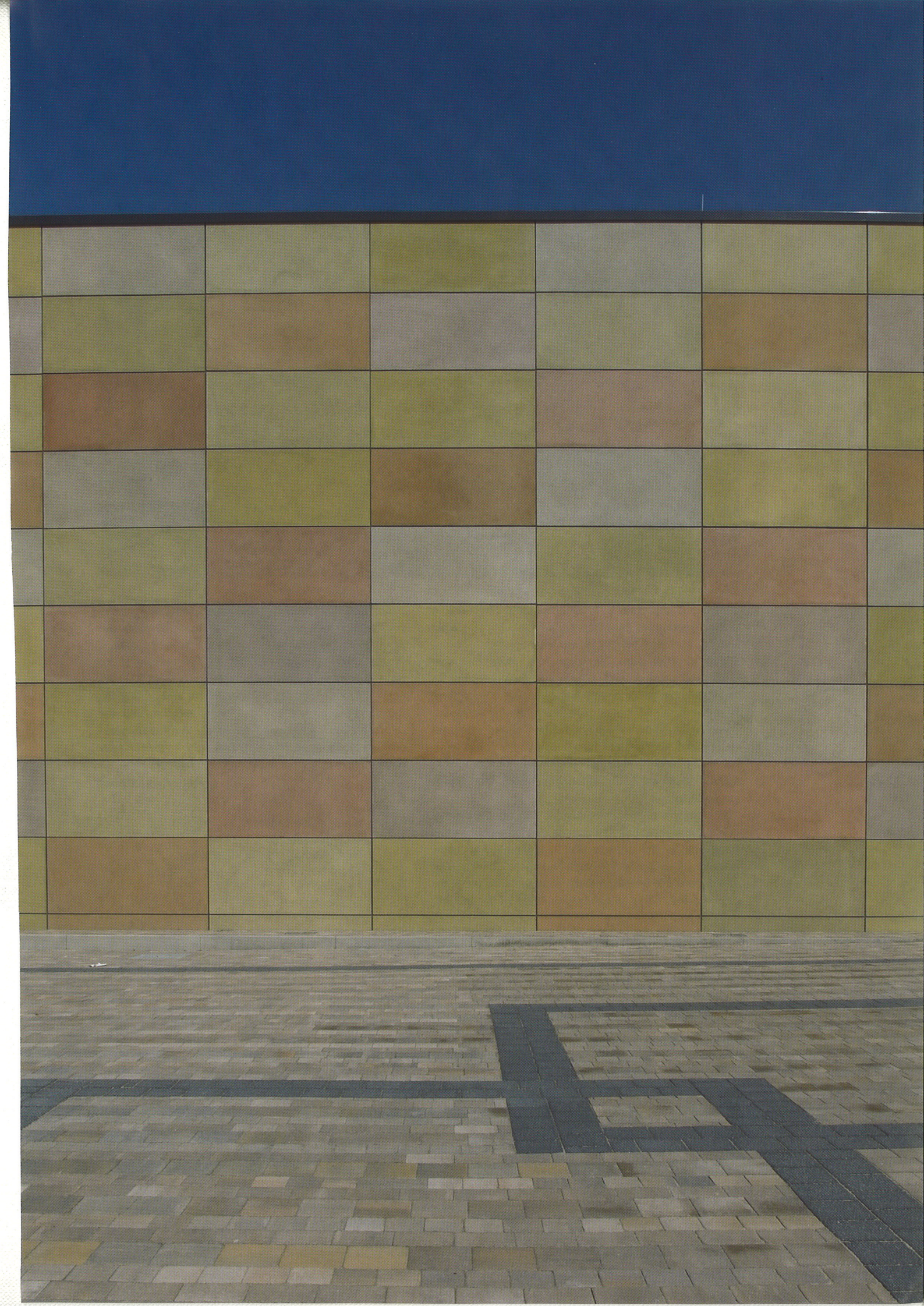


In October 2006, the Dreßler/Mauss/Boegl partnership gained the contract for erecting a hypermarket for electronics in Fürth with 4,350 square metre floor space and 180 underground car park spaces. The precast production facilities of Dreßler Bau in Stockstadt were commissioned with the manufacture and assembly of the façade. How to structure the façade remained a matter to be clarified. Ultimately, the most impressive solution was a façade with acid treated architectural concrete in seven different hues divided into about 540 pieces of individual sharp-edged fields of 2.60 m x 1.20 m. The load bearing precast façade consists of 127 sandwich elements each divided into 4 individual surfaces in the elevation, plus another 70

pieces non-bearing façade on top of this. The tendency that has been observed in the last few years – towards high quality architectural concrete with sophisticated workmanship – came fully to fruition in this prestigious property.

For manufacturing the seven different facade colour tones, the basic elements, grey cement + Main river granulations (0/2 – 2/8 screen cut) + 0/1 quartz sand, were mixed with differently weighted proportions of pigments. During the production of the elements themselves, particular attention was paid to the order of concreting sequences. In order to be able to concrete efficiently and to keep any possible discolouration to a minimum, the elements were poured from the lightest to the darkest colour – colour concreting sequence: grey, light yellow, yellow, orange, red, and brown. The mixer was cleansed with a high-speed process after every change of colour as total concreting time could be in no wise exceeded. It was







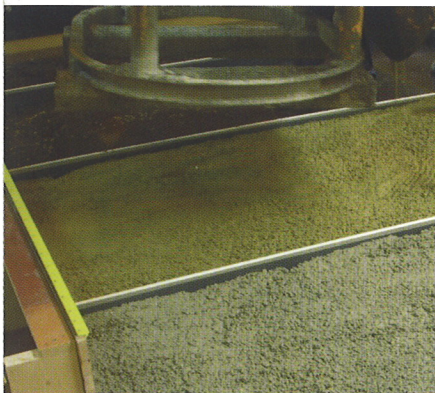
considered important to keep to a slump of 60 cm in order to obtain the fewest pores possible in the visible shell – concrete below 58 cm was rejected. During actual insertion into the formwork, more intensive work was needed with a rake and table vibrator in order to attain an especially homogeneous colouration. After at least 12 hours subsequent to the stripping process, the slabs were treated 3 or 4 times with acid to achieve the desired final result. For any work necessary with a spatula afterwards, a composite spatula was used for retouching with fine Main granulations.

The question of where to situate the truck-mounted crane for assembling the façade caused serious consternation at the construction site. Individual components of up to 14.5 tonnes had to be moved. The space available was extremely limited due to the inner city location. After an exhaustive study of the loading

tables for the tower cranes already situated at the construction site, the decision was made to carry out assembling the precast by means of the same cranes. As the latter were occupied almost 100 percent of the time during the day, only the night hours from 7:00 pm until 5:00 am remained at disposal for assembling the façade. This proved to be a good solution and the structural work progressed so rapidly that the topping-out ceremony could be celebrated only 14 weeks after beginning to assemble these precast elements.

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Manufacturing the architectural concrete precast components