

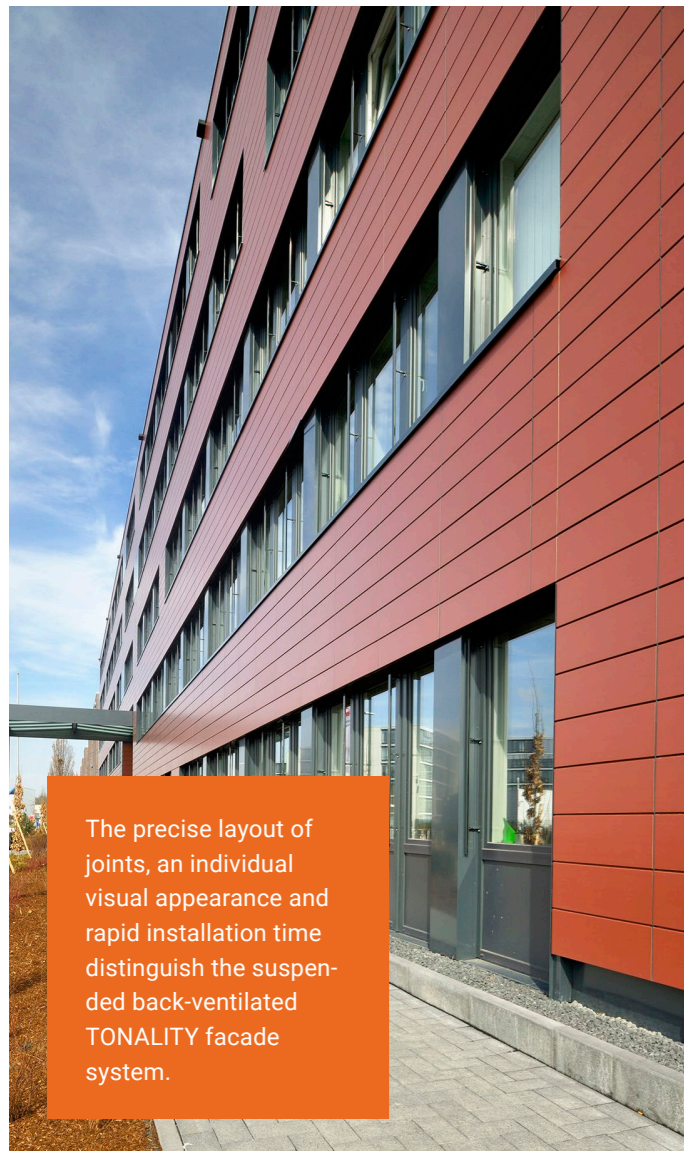
MODULAR CONSTRUCTION IN RECORD TIME



Project: Federal Employment Agency, Cologne (DE)
Completion: December 2017
Product: TONALITY® NUANCE
Main contractor: ALHO Systembau GmbH
www.alho.com

A new administrative building for the Federal Employment Agency was built in only eight months' construction time on the site of the former airport at Butzweiler Hof in Cologne. Thanks to the modern and classic brick red facade, this new-build construction is both convincing and merges harmoniously into its surroundings.

The really short build time is not the only peculiarity of this new-build. With its 19,500 m² gross floor space, this is the largest modular construction in Germany. Apart from this, the modular building manufacturer took on the roles of both General Contractor for this building project as well as Investor for the first time.



The precise layout of joints, an individual visual appearance and rapid installation time distinguish the suspended back-ventilated TONALITY facade system.

ADMINISTRATIVE BUILDING FOR OVER 600 PEOPLE

A total of 391 modules form this five to six storey administrative building for more than 600 people. The backbone of this building complex is formed by a six-storey longitudinal rectangle, to which vertical wings of the building are fitted on either side as four or five-storey constructions.

On the one hand this special structure reflects the campus-like characteristics, which above all can be attributed to the large spatial requirement. On the other hand this floor plan layout makes it possible for all offices to be directed outwards. In this way the same workplace conditions are present for all employees.

The specification of the open tendering process throughout the whole of Europe for this project on the part of the Federal Employment Agency was merely for a building, which could be rented for a period of 15 years. Butzweiler Hof proved to be the best of the three possible locations in the metropolis on the Rhine. The company ALHO Systembau GmbH from Friesenhagen was able to assert itself as an investor with the short build time, efficient production and the most attractive offering.

EFFICIENT PLANNING & DESIGN

"In the past we had to allow three years when planning and designing an office building. Today the construction process is considerably faster and the Main Contractors would like to be able to realise this considerably quicker", Jörg Löber explains, Managing Director of Alho, who also bore overall responsibility for the Federal Employment Agency project in Cologne. In order to keep the construction time as short as possible, the time between submitting the building application and receiving planning permission was used to work out the production plans. On the basis of the modular pre-assembly ('off-site production'), production planning with modular constructions has an enormous depth of detail and precision in comparison to conventional building work.

All determinations – such as for example the position of plug sockets and light switches, which with conventional constructions are made at the same time as building work is underway – must already have been cleared up prior to starting production for modular constructions. The modules left the production site heading for Cologne with a pre-assembled quota of 70 per cent ('off-site production').

OPTIMUM PROGRESSION OF CONSTRUCTION

On delivery to site at Butzweiler Hof, the 11.55 metre long, 4.20 metre wide and 3.95 metre high modular sections were lifted into their respective position using a crane and were welded together.

Whilst the installation process was still in progress in one area of the building site, the internal fit-out of the building was commencing in areas where installation work had already been completed. As soon as the first complex had been completed, the installation of a cladding facade developed by a cladding designer could also commence.



"Not only the particular visual appearance combined with integrated graffiti protection, but also the great flexibility of the facade system inspired us."

Jörg Löber, Managing director ALHO Systembau GmbH

CERAMIC FACADE

The modular constructions manufacturer had already contacted the experienced specialist facade company Franzen Fassadentechnik from Kottenheim about this in advance. In cooperation with TONALITY a new design proposal was developed for the suspended back-ventilated facade and samples were sent to the construction site.

Along with the high quality of the facade tiles, above all the rapid, flexible and reliable installation as well as the low weight of the ceramic facade elements were convincing here. "Not only the particular visual appearance combined with integrated graffiti protection, but also the great flexibility of the facade system inspired us", Jörg Löber tells us. "The combination of special fixing systems, low weight and ease of installation also ensured that very tight time-frames could be kept to."

7.300 M² OF FACADE AREAS

Alho decided on a facade tile from the TONALITY® NUANCE series in classic-modern brick red for a total of 7,300 m² of facade surfaces. On the grounds of the modular steel construction, the sub-structure had to be adjusted accordingly. A mixed grid with different tile heights between 275 and 300 mm was realised for the facades through the use of the base clinch rail system (BAS) and special profiles adjusted to the tile height grid. The result was convincing not only with its rapid installation time, but also with its continuously precise joint layout as well as the individual appearance of the facade appropriate for this new-build construction. An area of 7,300 m² of facade elevations were clad using facade tiles from the TONALITY® NUANCE series for a new administrative building for the Federal Employment Agency in Cologne.



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