

Press Release

HOCHTIEF realizes Mercedes Platz with innovative hollow-body ceiling technology

Cobix spheres enable CO₂ to be reduced by 97 tons

An area of almost 8,500 square meters of ceiling area is being built with the hollow-body ceiling technology from Cobix at Mercedes Platz in Berlin. For the Berlin project, HOCHTIEF, as the General Contractor, chose this innovative technology to realize an ideal ceiling height for the two steel-reinforced floor ceilings above the basement parking garage as well as over the ground floor.

“Using Cobix spheres provides significant advantages in the entire construction section: lean ceiling thicknesses with wide support spans and increased load capacities and expandable loads,” commented HOCHTIEF site manager Gerald Eberle. “This technology is also interesting with regard to sustainability aspects.”

For instance, thanks to the reduced shell construction loads, the thickness of the floor slab and hence the depth of the foundation can be minimized. During the building of the shell construction this provides advantages during the lowering of the groundwater, because the construction site is located in the immediate vicinity of the River Spree. In practical terms this means using Cobix hollow-body technology enables a total reduction in weight of 11,400 kilo newton, a reduction of 455 cubic meters of concrete and a 97-ton reduction of CO₂.

The use of Cobix hollow-body ceiling technology also makes it considerably easier to fit the smoke extraction ducts in the basement parking garage, because as a matter of principle cross girders are no longer required, which makes both the formwork and the concreting process easier. The same applies to the ceiling above the ground floor, because here a standard ceiling thickness can be concreted.

Both the shell construction workers and also the steel bar benders at Mercedes Platz just required a brief explanation of the system, so that the fitting of the 5,512 delivered hollow-body module units can be precisely coordinated with the ceiling/floor concreting sections. In keeping with the usual practice for hollow-body module ceilings, first of all an approximately twelve centimeter thick layer is pre-concreted, and then in a second stage the concreting process is implemented until the stipulated ceiling height is achieved.

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Amongst other things, HOCHTIEF Building has already used the Cobiax hollow-body technology for the previously realized construction projects Berliner Schloss – Humboldtforum and the Elbe Philharmonic Hall.

The project

Mercedes Platz in front of the Mercedes-Benz Arena is in future intended to form the vital centerpiece for the dynamically growing urban district along the East Side Gallery, and is being developed by AEG until fall 2018 for around EUR 200 million. Here the most important axes of public space come together and hence link all areas of the entire urban district. The building shells are arranged in accordance with the various offer focal points. This enables expansive entertainment offers, such as a movie theater and a functions hall for events to be incorporated in the direction of the Arena, while a hotel and office building with an open space in between is adorned with a classic facade facing towards Mühlenstraße.

HOCHTIEF is one of the most global construction groups. The Group operates construction in the transportation, energy and social/urban infrastructure segments as well as in the contract mining, PPP and services businesses. With around 51,000 employees and a sales volume of about EUR 20 billion in FY 2016, HOCHTIEF is represented globally. With CIMIC, the Group is market leader in Australia. In the USA, HOCHTIEF is the No. 1 general builder via Turner. Flatiron ranks among the most important players in the field of civil works, mainly in the transportation infrastructure. Thanks to its commitment to sustainability, HOCHTIEF has been listed in the Dow Jones Sustainability Indexes since 2006. Further information is available at www.hochtief.com/press

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