

Tour Total – High-Rise Landmark for EUROPACITY Berlin

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Summary

The tower for the new German headquarters of the French oil company TOTAL is located in Berlin and by now it has received numerous architectural awards due to its extraordinary appearance. The object was planning an energetically optimized building of high energy efficiency and a sophisticated design that was cost-optimized, the later was to be realized against tight deadlines, which resulted in innovative constructional design details being developed, amongst others due to the speedy construction work.

Keywords: Innovative design, high-rise building, prefabricated concrete, WU-structure, water impermeable concrete

1. Introduction

The tower for the German headquarters of the French oil company TOTAL, designed by the famous Berlin architects Barkow Leibinger, was the first building of the flagship project “Europacity” in Berlin, and intended to attract further investors to these premises north of the central station. To date it has received numerous awards due to its extraordinary architecture.



Fig. 1: Tour Total: Moving façade

The 18-storey-tower on a diagonally offset low-rise building is 70 m high. The structure is characterized by a certain plasticity and movement, with a rotation between the two-storey low-rise building it is based on and the tower; the diaphragm shows a slight “kink” in the façade to reduce its massive appearance on the long side.

The strictly geometrical appearance of the load-bearing façade with its stacked standard storeys is softened and visually dynamised by a variation of precast concrete modules. These three-dimensional, linear, light, prefabricated modules enhance the effects of light and shadow. The creation of the façade of load-bearing, comb-shaped supports allows for an open interior with flexible use of space.

The foundation of the Tour Total consists of a three-storey underground garage, which extends under the adjoining building as well, for which however no concept existed at the time. This considerably added to the complexity of the planning process, because a large variety of options had to be kept open for the future development, also taking into account the difficult ground conditions.