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Hotel 2050, Rutesheim near Stuttgart | Germany

Project Four-storey hybrid construction hotel
Place Rutesheim, Germany
Year of construction 2015
Client Bettina and Joachim G. Wünning
Architecture Brünninghoff GmbH & Co. KG
Execution Brünninghoff GmbH & Co. KG

The new 2412 m² business hotel „2050“ in Rutesheim provides space for 40 comfortable rooms, each with a floor area of 20 to 23 m². The construction period for the entire hotel was 12 months, with only 9 weeks assembly time for the shell and core. The unique feature of the project lies in its sustainable hybrid construction method, by means of which timber and concrete are intelligently combined and delivered as composite elements. The building is essentially made of timber, with the exception of the core of the staircase which is constructed from finished concrete elements. All outer walls are made of binderholz CLT BBS.

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The ceilings are BBS 125 system ceilings, 14 to 16 cm thick, largely supplied as visual quality elements. The construction was completed quickly and cost-effectively and savings were made by the intelligent combined hybrid construction method, coupled with a high level of prefabrication of the materials used.

Sound insulation was paramount, in view of the use of the building, and sound transfer had to be precluded between the hotel bedrooms so that hotel guests would not be exposed to troublesome noises from next door, which could adversely affect their comfort. The outer walls had to be clad with plasterboard to comply with the provisions governing this stipulated in DIN 4109. The interior binderholz CLT BBS walls were also enhanced with freely vibrating facing formwork. The sound problems that can arise in the ceiling void were prevented with a compression-resistant loose insulating material. The exacting fire protection requirements were fully complied with, thanks to planning by the fire protection designer early in the design stage.

The exacting fire and sound protection requirements can be met more flexibly by the use of intelligent hybrid solutions in which timber is used as the primary construction material. Normally these solid constructions do not feature voids in which fire can quickly spread. Timber therefore allows safe and sustainable buildings to be constructed.