Staircases: wood before concrete

Timbatec eliminates or minimizes the use of concrete and steel whenever possible. We also plan staircases and elevator shafts without steel and concrete whenever possible.

The project

Concrete core in a wooden shell

The staircase cores serve as static bracing of the buildings and ensure the escape routes in case of fire. Until now, these were usually created in concrete and before the timber construction. Only then did the carpenters arrive with the prefabricated timber construction elements and adapted them to the concrete staircase cores. Not so with the "Krokodil" house - Timbatec reversed the sequence for the 6- to 8-story timber construction: Here, the timber construction was erected first and later served as formwork for the concrete. The reversal of the work steps follows the logic of the material properties: The exact prefabricated timber provides the form for the pourable concrete.

The construction method

Time and material saved

The innovative process for staircase cores was developed by Timbatec for the "Crocodile". It is efficient and resource-saving at the same time. Steel profiles and screws can be used more sparingly: All connection angles to the concrete cores with the corresponding fasteners are eliminated. In the construction of the "Crocodile," 24 tons of steel, five thousand heavy-duty anchors, over ten thousand screws and 375 tons of concrete can be dispensed with in the stairwell alone.

Completely without concrete

Today, staircase cores can also be constructed without concrete and only with cross-laminated timber panels. Contact us.