

REF-A25

TIMBER-CONCRETE HYBRID BUILDING
PROJECT

Nursing home of the
future Vöhringen,
Germany

LOCATION

Germany

CLIENT
DESIGNER
INSTALLATION 2024

Application → Connectors for Timber to concrete

Design std. → EN 1992-4

Hardware → Hilti HCW, HST3, SIW 6AT-22

Software → ingtools design software

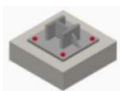
Services → meetings at designer's office

CHALLENGES

- Highest dimensional accuracy
- Combined with the possibility of easily integrating large format
- Heavy tiles into the interior concept
- Utility benefit was incorporated directly from the industrial production principle

HILTI TOTAL SOLUTION

- ✓ HCW, was used to ensure the lowest possible tolerances
- ✓ High assembly speeds
- ✓ Shear and tension load transfer by HCW and HCW-L tie rods


LOAD/ CONDITIONS

Static

PROJECT HIGHLIGHT


Hilti solution towards high precision and speed with minimum tolerances

APPLICATION AND REQUIREMENT



Application Details: Timber to concrete

The central aspect of the planning was the design of the residents' rooms as a care module, the quality of which is based on the hotel industry. Important arguments for the decision in favor of residential modules arose from the principle of industrial production. This includes the highest dimensional accuracy, combined with the possibility of easily integrating large-format and therefore heavy tiles into the interior concept.

Additional Requirements

In addition to aesthetics, the utility benefit was incorporated directly from the industrial production principle. The manufacturing tolerances also had to be adhered to during assembly.

APPROACH TOWARDS SOLUTION



Delivery of the individual modules including pre-assembled HCW connectors

The Hilti wood connector, HCW, was used to ensure the possible tolerances. Shear loads were transferred by the HCW, lifting tensile loads were transferred by the HCW-L tie rods and high assembly speeds. Minimal manufacturing tolerances, precise connections and exact joint widths, immediately reduce the cleaning effort for floors, walls and work surfaces - an essential factor for a high hygiene standard in inpatient care.

Post-installed anchors and other tools

- Post-installed anchor- **HCW** for shear and **HCW-L tie** anchors for tension loads
- Installation was done using Hilti SIW 6AT-22

THE FINAL OUTCOME



Assembly of the individual modules