

Flat roof Handl, Haiming Tirol

2020



In the Austrian Tyrol, a 650m² cross laminated timber panel was created in two days using TS3 technology. This is a world record: it is the largest continuous CLT panel.

The project

Markus Handl Beteiligung GmbH is an Austrian family business based in the Tyrol. With the focus of the company on its homeland, it is obvious that Handl GmbH will use wood as the natural building material. on the natural building material wood.

For the For the new production building in Vorarlberg, Austria, the panel end the CLT plant of the Binder company in Unternberg were pretreated with the TS3 special primer and then immediately applied sealing and segmenting tapes. segmentation tapes. The 3.5 meter wide slabs, some of which weighed over five tons were loaded just in time and transported by accompanying vehicle directly to the construction site in Pians.

The construction method

A falsework was created for the assembly. TS3 uses the patented potting technology with 2K polyurethane adhesive from Henkel ensures the bending-resistant connection of the individual 240 mm cross laminated timber panels. The Spider column head reinforcement from Rothoblaas was installed over the columns in a in a grid of 7 x 7 meters. As an assembly aid, the X-Fix from the Schilcher Trading & Engineering GmbH were used.

The challenges

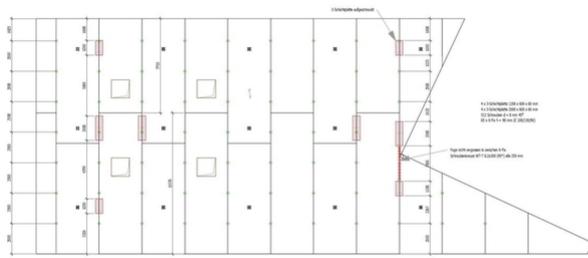
Until now the TS3 joints were formed in parallel. These were sealed on the underside of the on the underside of the slab. In this project, an advanced joint shape was formed for the first time. This requires less casting resin and simplifies the process. simplifies the process, as no sealing is required on the underside.



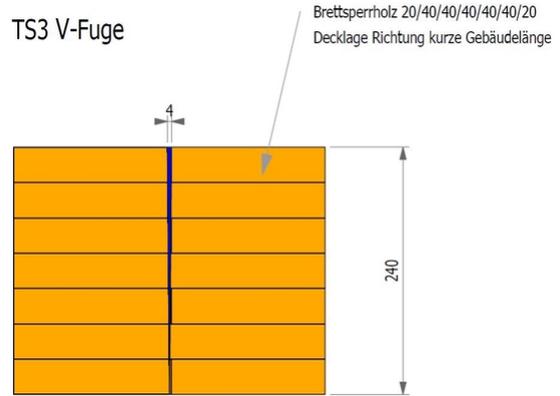
Bird's eye view of the entire building



CLT panels on the wooden supports with a grid of 7 x 7 meters



CLT plate division



TS3 V-joint connection

Construction data

- Number of floors: 1
- Gross floor area: 650 m²
- Cross laminated timber: 156 m³
- TS3 technology: 223 linear meters of joints

Architecture

ATP architects engineers
Innsbruck, AT

Client

Markus Handl Participation GmbH
Pians, AT

Timber engineer

ETH Zurich
University of Innsbruck

Construction management

HTB Construction Company m.b.H.
Arzl in Pitztal, AT

Photography

Tom Bause
Innsbruck, AT