

# New construction salt storage hall, Mühlethurnen

2010



Due to damage to the concrete and steel structure, the existing salt storage hall at the road inspectorate's depot in Seftigen had to be replaced.

## The project

The decision Since wood behaves absolutely problem-free in contact with salt in contrast to other building materials, the client decided in favor of a wooden building. The new single-story salt storage hall serves as a storage and handling building for de-icing salt. The execution The floor slab and the 1.3 m high base are made of cast-in-place concrete. The remaining walls and the roof are made of wood. The salt is filled into the hall with a blowing device attached to the roof. When the hall is filled with salt, horizontal bearing loads are applied to the wooden structure.

## The construction

A temporary retaining wall in the area of the hall door ensures optimum filling; the filling height was marked on the wooden walls and must not be exceeded. The structural design consists of the walls that support the vertical loads from the roof as well as the horizontal forces from the bulk material. The structure The roof structure of rafters rests on the longitudinal walls. A lintel girder made of glulam spans the approximately 8 m wide door. Roof and wall panels made of nailed panes form the bracing. The high horizontal forces can thus be absorbed even with asymmetrical arrangement of the stored goods. Great attention was paid to corrosion protection of the steel connecting parts. All welded steel parts are hot-dip galvanized and duplexed. The concrete anchors are made of highly corrosion-resistant steel.



Fall



Fill markers



Shuttering



Vordach

#### **Construction Data**

- Roof area 230 m<sup>2</sup>
- Wall area 170 m<sup>2</sup>
- Salt volume 427 m<sup>3</sup>

#### **Services of Timbatec**

- SIA phase 31 preliminary project
- Cost estimate
- SIA Phase 32 Construction project
- Statics and construction
- Site supervision and site inspections

#### **Client**

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#### **Timberconstruction engineers**

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#### **Timberconstructors**

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