

# Technical Data Sheet

## Optimal Wall

The Optimal Wall system is engineered for efficiency and comfort in moderate climates.

The assembly is based on a timber frame structure incorporating **200 millimeters of primary insulation** and is protected by an internal vapor barrier membrane.

This configuration is designed to maintain a stable and comfortable indoor microclimate throughout the year. The inclusion of a dedicated vapor barrier is critical for managing moisture transport, thereby protecting the structural components from potential damage and ensuring the building's long-term integrity and durability.

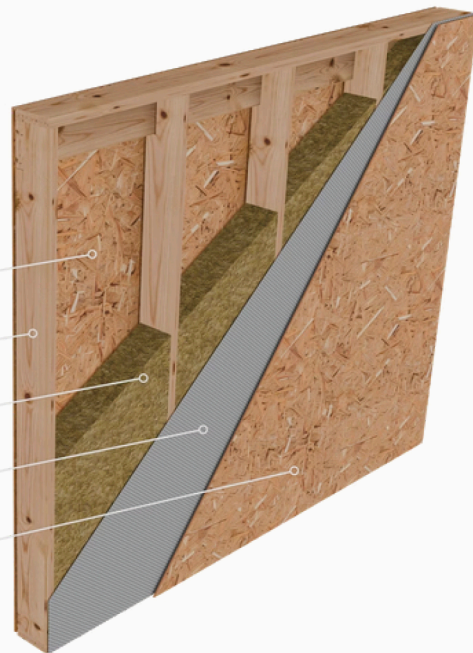
The system provides a reliable and cost-effective solution for regions with mild winter conditions.

## Wall Assembly Composition



OPTIMAL PRESET / Thickness: 217mm

1. External OSB Plate	12 mm
2. Timber Frame Structure	195 mm
3. Primary Insulation / Soft Mineral Wool	200 mm
4. Vapor Barrier / Diffusion Membrane	0.2 mm
5. Internal OSB Plate	9 mm

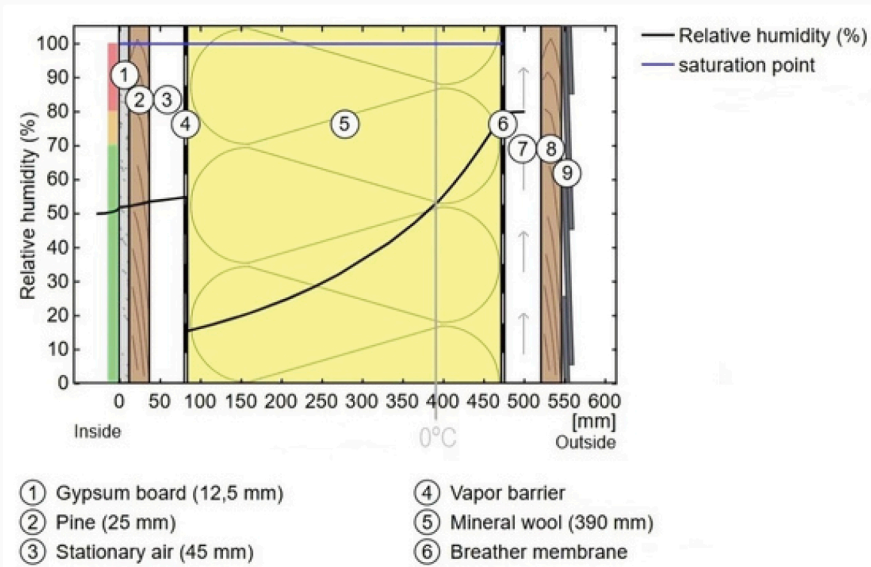


CONSTRUCTION SYSTEM / Walls Presets



# Hygrothermal Analysis

## Relative Humidity & Moisture Control



**Drying reserve** Drying reserve according

to DIN 4108-

3:2018: **248 g/(m<sup>2</sup>a)**

At least required by DIN 68800-2: **100 g/(m<sup>2</sup>a)**

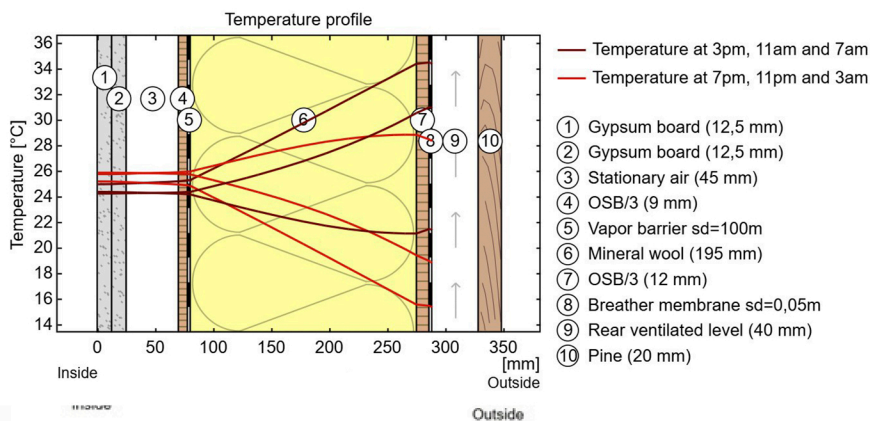
**Mould protection** The temperature of

the inside surface is

18,7 °C leading to a relative humidity on the surface of 54 %.

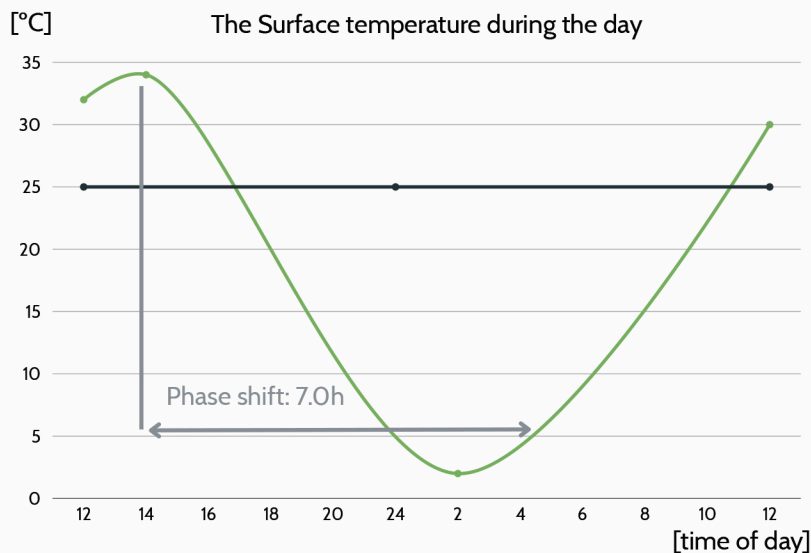
Mould formation is **not expected** under these conditions.

## Temperature & Condensation Risk



The following results are properties of the tested component alone and do not make any statement about the heat protection of the entire room.

## Surface Temperature Analysis



- phase shift: 7,0 h
- Heat storage capacity (whole component): **54 kJ/m<sup>2</sup>K**
- Amplitude attenuation: **10,9**
- Thermal capacity of inner layers: **33 kJ/m<sup>2</sup>K**
- TAD: **0,092**