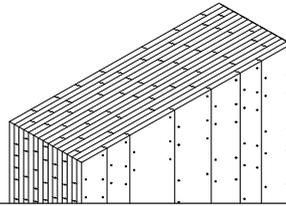


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TECHNICAL DATA MASSIV-HOLZ-MAUER®

Material: Coniferous wood panels, unsorted according to width, technically dried 15 % +/- 3 % and 23 mm thick

Dimensions:

Height:	max. 3.25 m		
Width:	max. 6.00 m		
Possible wall thicknesses:	External wall	34.0 cm	15 layers
	External wall	29.5 cm	13 layers
	External wall	25.0 cm	11 layers
	External wall	20.5 cm	9 layers
	Internal wall	16.0 cm	7 layers
	Internal wall	11.5 cm	5 layers

Element structure: several layers crosswise connected, pressed and connected to a wall panel via aluminium grooved pins. All defined wall thicknesses are produced with an uneven number of panel layers. Consequently, internal and external layer are always arranged vertically.

Surfaces: Grooved surface planed / levelled on one side (the generated air inclusions result in an optimised U value); mutually rough sawn

Timber protection: Technical drying of the raw panels of min. 8 hours at 65°C replaces chemical timber protection

Connection: Aluminium grooved pins (according to ETA certification ETA-13/0801)

Form stability: The longitudinal expansion coefficient of timber is $8.0 \cdot 10^{-6}$ at 20°C. Consequently, form modifications cannot be measured with construction site conventional measuring devices.

Gross density: approx. 480 kg/m³

Heat conductivity: $\lambda = 0.094 \text{ W}/(\text{m}^*\text{K})$, (measurement result measured by MFPA Leipzig)
 $\lambda = 0.11 \text{ W}/(\text{m}^*\text{K})$, (measured by AbZ.)

Heat protection: U value (insulated with 10 cm wood soft fibre WLG 040)

34.0 cm = 0.17 W/m²K
29.5 cm = 0.19 W/m²K
25.0 cm = 0.20 W/m²K
20.5 cm = 0.22 W/m²K

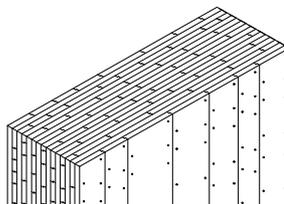
U value (insulated with 16 cm wood soft fibre WLG 040)

34.0 cm = 0.14 W/m²K
29.5 cm = 0.15 W/m²K
25.0 cm = 0.16 W/m²K
20.5 cm = 0.17 W/m²K

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- Vapour diffusion:** without diffusion barrier, vapour braking, diffusion resistance number = approx. 65 μ
- Wind tightness:** Thanks to its construction, the Massiv-Holz-Mauer® system is able to produce the air/wind tightness according to DIN 4108. For buildings requiring a higher air/wind tightness (passive house and efficiency house) corresponding accompanying measures are necessary.
- Noise insulation:** External wall: 34 cm target value 48 dB (according to test report MFPA Leipzig)
Building partition wall: target value 78 dB (according to test report ift Rosenheim)
Flat partition wall: target value 61 dB (according to test report ift Rosenheim)
- Fire protection:** MHM 20.5 cm – REI 90 (according to the report on the classification of the fire resistance according to EN 13501-2:2008-01 and General Appraisal Certificate)
- High-frequency rays:** Thanks to the solid monolithic solid wood wall (Massiv-Holz-Mauer®) and according to the certificate, up to 95 % of the high-frequency rays (mobile communications, television, beam radio etc.) are even shielded in the uncovered raw wall.
- Heat storage capacity:** The Massiv-Holz-Mauer® system has an excellent heat storage capacity with particularly good cooling times. The cooling values are by a multiple factor higher than in stone brickwork.
- Timber mortar:** Timber mortar (wax compound) makes the wall elements for transport and assembly water-repellent and serves as a joint mortar (seal). It will be applied on customer request.