

WEM clay board 25 mm

Article 10013

Description

The WEM clay panel is a plasterable building panel made of clay mortar reinforced with plant fibers.

Application

WEM clay panels are leveling panels manufactured for the WEM dry construction system. They fill in areas not covered with the WEM climate panels, thus providing a homogeneous substrate for subsequent plastering. They serve as a plaster base for dry constructions throughout interior building and are used as sheathing for timber frame walls, interior walls, partition walls, suspended ceilings, and attic conversions.



Fig. 1

Advantages

- High sound insulation
- Simple and quick processing
- Minimal moisture ingress due to thin plaster layers
- Minimum drying times
- Pure natural product without pollutant contamination
- Diffusion-open and capillary-conductive
- Good heat retention

Materials

plate	Natural building clay, plant fibers, mixed-grain washed sand
reinforcement	fiber optics

Technical data

Dimensions	100 x 62.5 x 2.5 cm (Tolerance +/- 2 mm)
Weight	approx. 37.5 kg/m ² (approx. 23.5 kg/pc.)
Bulk density	approx. 1560 kg/m ³
Thermal conductivity λ	0.7 W/m ² K
Specific heat capacity C_p	approx. 1.0 kJ/(kgK)
Vapor diffusion resistance μ	5 - 10
Compressive strength σ_d	< 2.5 N/mm ²
Edge shape	blunt
Building material class	A2 (non-flammable) according to DIN EN 13501-1
Building-related requirements	Protect from moisture, store in a dry place, processing temperature $\geq 5^\circ\text{C}$

Soundproofing

As part of a master's thesis at Koblenz University of Applied Sciences, the influence of WEM clay panels 25 mm (LP) on three typical wall constructions was investigated:

Solid construction: 175 mm lime-sandstone with 10 mm cement plaster

Solid wood: 170 mm KVH (Holz 100)

Wooden frame: Timber frame 6/12 cm with 12 cm wood fiber, sheathed on both sides with 2.5 cm diagonal cladding

	Solid construction	Solid wood	wooden frame
Without planking	55.0 dB	39.3 dB	35.0 dB
1 x LP + 8 mm clay fine plaster	57.8 dB	47.8 dB	45.6 dB
	<i>Reduction: 2.8 dB</i>	<i>Reduction: 8.5 dB</i>	<i>Reduction: 10.6 dB</i>
2 x LP + 16 mm clay fine plaster	58.5 dB	56.9 dB	47.7 dB
	<i>Reduction: 3.5 dB</i>	<i>Reduction: 17.2 dB</i>	<i>Reduction: 10.6 dB</i>
80 mm wood fiber + LP + 8 mm clay fine plaster	64.2 dB	60.2 dB	58.9 dB
	<i>Reduction: 9.2 dB</i>	<i>Reduction: 20.9 dB</i>	<i>Reduction: 23.9 dB</i>