dataholz.eu

Designation: iwmxxo01a-00
Last updated: 8/2/23
Source: Holzforschung Austria
Editor: HFA, SP

Internal wall - iwmxxo01a-00

internal wall, solid wood construction, without dry lining, wooden surface

Performance rating

Fire protection performance	**REI**	60

maximum ceiling height = 3 m; maximum load $E_{d,fi}$ = 35,0 kN/m
Classified by MA39
Classified by HFA

Germany

REI60

Load $E_{d,fi}$ according to the German certification document

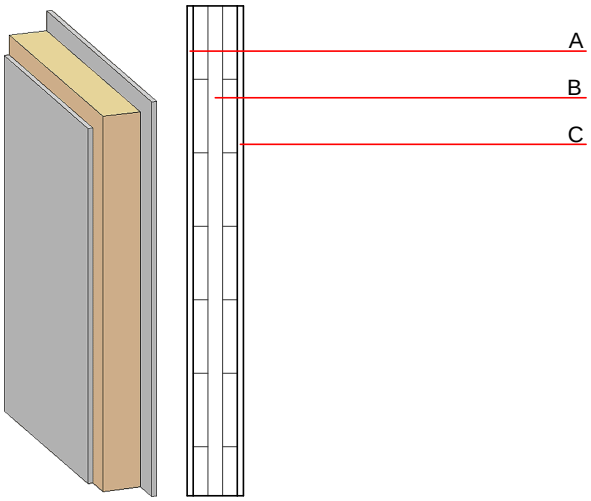
Corresponding proof: manufacturer-specific

Acoustic performance	**R_w ($C;C_{tr}$)** **$L_{n,w}$ (C_I)**	38(-2;-5) dB

Assessed by TU-GRAZ
Assessed by Müller-BBM

Mass per unit area	**m**	65.00 kg/m²

Calculation based on gypsum plaster board type DF



Note: The fire resistance is only valid when wall is used as partition with only one side exposed to fire.
Cross laminated timber:
Var. 00: thickness ≥ 78mm; 3-ply at least, surface layer at least 25 mm
Var. 01: thickness ≥ 94mm; 3-ply at least, surface layer at least 30 mm

Register of building materials used for this application, cross-section (from outside to inside, dimensions in mm)

	Thickness	Building material	Thermal performance				Reaction to fire
			λ	μ min – max	ρ	c	EN
A	12.5	gypsum plaster board type DF / gypsum fibre board	0.250	10	800	1.050	A2
B	90.0	solid glued wood e.g. cross laminated timer	0.130	50	500	1.600	D
C	12.5	gypsum plaster board type DF / gypsum fibre board	0.250	10	800	1.050	A2

Sustainability rating (per m²)

Database ecoinvent

$OI3_{Kon}$	19.6

Calculated by HFA

Database GaBi (ÖKOBAUDAT)

Built-in renewable materials	**kg**	44.050
Biogenic carbon in kg CO_2-e.	**kg CO_2**	63.410
Energy use of Primary Energy	**MJ**	512.710
Share of renewable PE	**%**	35.91

Calculated by TUM

Details of sustainability rating

Database ecoinvent

Lifecycle (Phases)	GWP [kg CO_2-e.]	AP [kg SO_2-e.]	EP [kg PO_4-e.]	ODP [kg R11-e.]	POCP [kg Ethen-e.]	
A1 - A3		0.103	0.043	2,11E-6	0.033	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	26.768	615.600	642.368	376.136	15.462	391.599

Database GaBi (ÖKOBAUDAT)

Lifecycle (Phases)	GWP [kg CO_2-e.]	AP [kg SO_2-e.]	EP [kg PO_4-e.]	ODP [kg R11-e.]	POCP [kg Ethen-e.]	
A1 - A3		0.060	0.012	2,28E-6	0.012	
C1 - C4		0.002	0.000	1,48E-7	0.000	
A1 - C4		0.066	0.013	2,44E-6	0.012	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	182.890	756.450	937.530	304.670	8.690	312.860
C1 - C4	0.480	-746.100	-745.620	13.450	0.000	13.450
A1 - C4	184.130	10.870	193.200	328.580	8.790	336.870