dataholz.eu

Designation: iwrxxo01a-03
Last updated: 8/2/23
Source: Holzforschung Austria
Editor: HFA, PLB

Internal wall - iwrxxo01a-03

internal wall, timber frame construction, without dry lining, other surface

Performance rating

Fire protection performance — **REI** — 60

maximum ceiling height = 3 m; maximum load $E_{d,fi}$ = 19,2 kN/m
Classified by MA39
Classified by HFA

Germany

F30

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

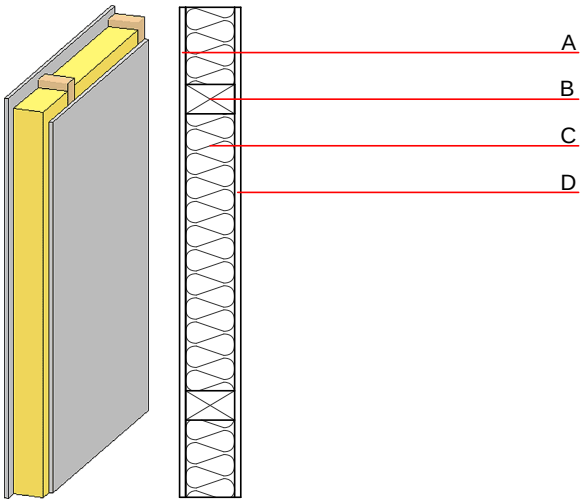
Corresponding proof: DIN 4102-4:2016-05, Tabelle 10.6, Zeile 12

Acoustic performance — **R_w ($C;C_{tr}$)** **$L_{n,w}$ (C_I)** — 38(-3;-8) dB

Assessed by Müller-BBM

Mass per unit area — **m** — 27.30 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.
(B=60/100); e=625

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	0.250	10	800	1.050	A2
A	12.5	gypsum fibre board	0.320	21	1000	1.100	A2
B	100.0	construction timber (60/100 or 60/160; e=*)	0.120	50	450	1.600	D
C	100.0	mineral wool [040; 33; ≥1000°C]	0.040	1	33	1.030	A1
D	12.5	gypsum plaster board type DF	0.250	10	800	1.050	A2
D	12.5	gypsum fibre board	0.320	21	1000	1.100	A2

Sustainability rating (per m²)

Database ecoinvent

$OI3_{Kon}$ — 14.2

Calculated by HFA

Database GaBi (ÖKOBAUDAT)

Built-in renewable materials	**kg**	4.730
Biogenic carbon in kg CO_2-e.	**kg CO_2**	6.910
Energy use of Primary Energy	**MJ**	175.790
Share of renewable PE	**%**	20.68

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		0.059	0.019	8,82E-7	0.022	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	20.959	78.614	99.574	170.179	0.000	170.179

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		0.037	0.006	2,90E-7	0.003	
C1 - C4		0.002	0.001	5,33E-8	0.000	
A1 - C4		0.043	0.008	3,59E-7	0.004	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	35.437	92.580	128.401	121.668	6.368	128.082
C1 - C4	0.147	-81.676	-81.529	6.794	-0.050	6.745
A1 - C4	36.347	11.422	48.153	139.442	6.422	145.911