Internal wall - iwrxxo01a-08
internal wall, timber frame construction, without dry lining, other surface

Performance rating

Fire protection performance REI 30

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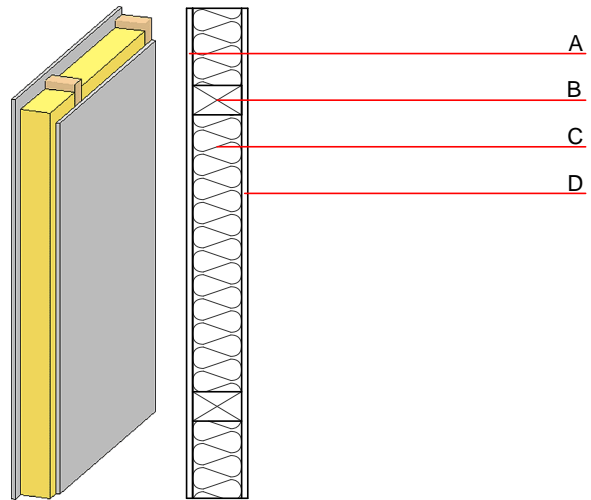Classified by HFA
Classified by HFA

Germany

F30

Load $E_{d,fi}$ according to the German certification document
Corresponding proof: manufacturer-specific

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

Assessed by Müller-BBM

Mass per unit area	m	28.40 kg/m^2

Calculation based on gypsum plaster board type DF

A
B
C
D

Note: The fire resistance is only valid when wall is used as partition with only one side exposed to fire.
(60/100 od. 60/160; 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	Wood fibre insulation [039; 45]	0.039	1 - 2	45	2.100	E
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 m^2)

Database ecoinvent

OI3$_{Kon}$	8.5

Calculated by HFA

Database GaBi (ÖKOBAUDAT)

Built-in renewable materials	kg	9.700
Biogenic carbon in kg CO_2-e.	kg CO_2	14.030
Energy use of Primary Energy	MJ	382.540
Share of renewable PE	%	35.44

Calculated by TUM

dataholz.eu

Designation: iwrxxo01a-08
Last updated: 8/2/23
Source: Holzforschung Austria
Editor: HFA, PLB

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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		0.034	0.016	9,61E-7	0.007	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	33.890	192.537	226.427	158.391	6.584	164.975

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		0.040	0.009	2,29E-7	0.008	
C1 - C4		0.002	0.000	5,35E-8	0.000	
A1 - C4		0.045	0.010	2,97E-7	0.009	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	134.148	320.496	455.027	223.779	17.923	241.748
C1 - C4	0.677	-310.128	-309.450	12.721	-16.039	-3.318
A1 - C4	135.583	10.886	146.853	246.958	1.988	248.993

dataholz.eu – Catalogue of timber building materials, components and component connections reviewed to consider thermal, acoustic, fire performance requirements and ecological drivers for timber construction released by accredited testing institutes.
These datasheets will generally be accepted as proofs of compliance by building authorities.

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