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Internal wall - iwrxxo01b-00
internal wall, timber frame construction, without dry lining, other surface

Performance rating

Fire protection performance   REI   60

maximum ceiling height = 3 m; maximum load $E_{d,fi}$ = 50,0 kN/m
Classified by MA39
Classified by HFA

Germany

F30/F60 (depending on the corresponding proof)

Load $E_{d,fi}$ according to the German certification document
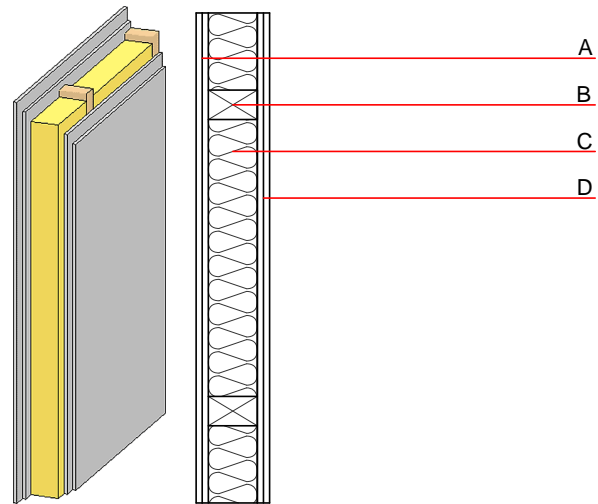
Corresponding proof: F30: DIN 4102-4:2016-05, Tabelle 10.5,Zeile 5; F60: DIN 4102-4:2016-05, Tablle 10.5, Zeile 10 (if gypsum plaster board type DF or gypsum fibre board 15 mm inside) or manufacturer-specific

| **Acoustic performance** | R_w (C;C_{tr}) | 43(-1;-5) dB |
| | $L_{n,w}$ (C_I) | |

Assessed by Müller-BBM

Mass per unit area   m   45.80 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	25.0	gypsum plaster board type DF (2x12,5 mm) or	0.250	10	800	1.050	A2
A	25.0	gypsum fibre board (2x12,5 mm)	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; ≥16; <1000°C]	0.040	1	16	1.030	A1
D	25.0	gypsum plaster board type DF (2x12,5 mm) or	0.250	10	800	1.050	A2
D	25.0	gypsum fibre board (2x12,5 mm)	0.320	21	1000	1.100	A2

Sustainability rating (per m²)

Database ecoinvent

| OI3$_{Kon}$ | 15.9 |

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	261.110
Share of renewable PE	%	17.75

Calculated by TUM

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Designation: iwrxxo01b-00
Last updated: 8/2/23
Source: Holzforschung Austria
Editor: HFA, SP

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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		0.051	0.024	1,60E-6	0.007	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	25.609	78.614	104.223	244.059	0.000	244.059

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		0.045	0.008	3,10E-7	0.004	
C1 - C4		0.004	0.002	9,42E-8	0.000	
A1 - C4		0.055	0.012	4,34E-7	0.006	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	44.624	102.928	147.936	181.542	8.252	189.840
C1 - C4	0.207	-81.676	-81.468	11.776	-0.050	11.726
A1 - C4	46.352	22.288	69.025	214.756	8.410	223.212

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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