# dataholz.eu

Designation: Last updated: Source: Editor:

iwrxxo06a-08 8/2/23 Holzforschung Austria HFA, SP

# Internal wall - iwrxxo06a-08

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

## Performance rating

Fire protection performance	REI	60					
maximum ceiling height = Classified by HFA Classified by HFA	3 m; maximum load	d E <sub>d,fi</sub> = 19,2 kN∕m					
Germany							
F60							
Load $E_{d,fi}$ according to the	German certification						
Corresponding proof: man	ufacturer-specific						
Acoustic performance	R <sub>w</sub> (C;C <sub>tr</sub> ) L <sub>n,w</sub> (C <sub>l</sub> )	50 dB					
Assessed by Müller-BBM							
Mass per unit area	m	48.30 kg/m <sup>2</sup>					
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.

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

15.3

	Thickness	Building material	Thermal performance			Reaction to fire	
			λ	µ min – max	ρ	с	EN
А	15.0	gypsum fibre board or	0.320	21	1000	1.100	A2
А	15.0	gypsum plaster board type DF	0.250	10	800	1.050	A2
В	15.0	OSB	0.130	200	600	1.700	D
С	100.0	construction timber (60/100 or 60/160; $e=*$ )	0.120	50	450	1.600	D
D	100.0	Wood fibre insulation [039; 50]	0.039	1 - 2	50	2.100	E
Е	15.0	OSB	0.130	200	600	1.700	D
F	15.0	gypsum fibre board or	0.320	21	1000	1.100	A2
F	15.0	gypsum plaster board type DF	0.250	10	800	1.050	A2

#### Sustainability rating (per m<sup>2</sup>)

#### Database ecoinvent

OI3<sub>Kon</sub>

Calculated by HFA

### Database GaBi (ÖKOBAUDAT)

Built-in renewable materials	kg	27.700
Biogenic carbon in kg CO2-e.	kg CO <sub>2</sub>	41.840
Energy use of Primary Energy	MJ	706.530
Share of renewable PE	%	29.15

Calculated by TUM

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### Details of sustainability rating

#### Database ecoinvent

Lifecycle	GWP	AP	EP	ODP	POCP	
(Phases)	[kg CO <sub>2</sub> -e.]	[kg SO <sub>2</sub> -e.]	[kg PO <sub>4</sub> -e.]	[kg R11-e.]	[kg Ethen-e.]	
A1 - A3		0.070	0.029	1.57E-6	0.014	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[M]	[M]	[M]	[LM]	[MJ]	[MJ]
A1 - A3	83.573	445.772	529.344	285.094	28.684	313.778

#### Database GaBi (ÖKOBAUDAT)

Lifecycle	GWP	AP	EP	ODP	POCP	
(Phases)	[kg CO <sub>2</sub> -e.]	[kg SO <sub>2</sub> -e.]	[kg PO <sub>4</sub> -e.]	[kg R11-e.]	[kg Ethen-e.]	
A1 - A3		0.083	0.015	3.55E-7	0.028	
C1 - C4		0.003	0.001	6.42E-8	0.000	
A1 - C4		0.089	0.017	4.37E-7	0.029	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[LM]	[LM]	[M]	[LM]	[MJ]	[M]
A1 - A3	203.545	631.635	835.564	471.362	31.054	502.460
C1 - C4	1.454	-621.266	-619.814	16.026	-28.680	-12.650
A1 - C4	205.955	10.886	217.224	500.572	2.502	503.120