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Designation: Last updated: Source: Editor: awropi16b-03 8/2/23 Holzforschung Austria HFA, SP

A B C E F G

H I D

External wall - awropi16b-03

external wall, timber frame construction, not ventilated, with dry lining, with rendering, other surface

Performance rating

Fire protectionREI from inside60performanceREI from outside60maximum ceiling height = 3 m; maximum load $E_{d,fi}$ = 32,0 kN/mClassified by HFA			
Thermal performance Calculated by HFA	U Diffusion	0.15 W∕(m ² K) suitable	-
Acoustic performance	R _w (C;C _{tr}) L _{n,w} (C _l)	53(-2;-9) dB	- 2
Vertical battens for the dr Rw(C;Ctr)=51(-1;-7) dB Assessed by MA39	y lining screwed onto t	he ledger beams lead to an	E
Mass per unit area	m	77.70 kg/m ²	

Calculation based on gypsum plaster board type DF

Note: e=625

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

	Thickness	Building material	Thermal per	formance			Reaction to fire
			λ	µ min – max	ρ	с	EN
Ą	7.0	plaster	1.000	10 - 35	2000	1.130	A1
В	60.0	wood-fibre insulation board WF-PT [045; 180]	0.045	5 - 7	180	2.100	E
С	15.0	fibreboard (MDF)	0.140	11	600	1.700	D
D	200.0	construction timber (60/; e=*)	0.120	50	450	1.600	D
E	200.0	mineral wool [040; ≥16; <1000°C]	0.040	1	16	1.030	A1
F	15.0	OSB (sealed with airtight tape)	0.130	200	600	1.700	D
G	40.0	spruce wood cross battens (a=400) or battens offset)	0.120	50	450	1.600	D
Н	40.0	mineral wool [040; ≥16; <1000°C]	0.040	1	16	1.030	A1
I	15.0	gypsum plaster board type DF or	0.250	10	800	1.050	A2
I	15.0	gypsum fibre board	0.320	21	1000	1.100	A2

Sustainability rating (per m²)

Database ecoinvent

OI3_{Kon} Calculated by HFA 44.8

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Details of sustainability rating

Database ecoinvent

Lifecycle	GWP	AP	EP	ODP	POCP	
(Phases)	[kg CO ₂ -e.]	[kg SO ₂ -e.]	[kg PO ₄ -e.]	[kg R11-e.]	[kg Ethen-e.]	
A1 - A3		0.192	0.085	3,55E-6	0.028	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[LM]	[LM]	[MJ]	[LM]	[M]	[MJ]
(,			i	673.731	58.943	732.674

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.