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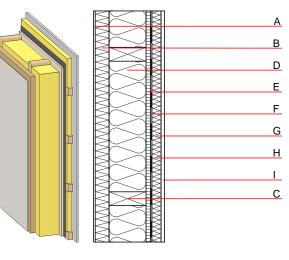
Designation: Last updated: Source: Editor: awropi20b-04 8/2/23 Holzforschung Austria HFA, SP

External wall - awropi20b-04

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

Performance rating

Fire protection performance maximum ceiling height = Classified by HFA	REI from inside REI from outside 3 m; maximum load E _{d,fi} = 3	60 60 82,0 kN∕m					
Thermal performance	U Diffusion	0.13 W/(m ² K) suitable					
Calculated by HFA							
Acoustic performance	R _w (C;C _{tr}) L _{n,w} (C _l)	54(-2;-9) dB					
Vertical battens for the dry lining screwed onto the ledger beams lead to an $Rw(C;Ctr)=52(-1;-7) dB$ Assessed by MA39							
Mass per unit area	m	75.00 kg∕m²					



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	Reaction to fire			
			λ	µ min – max	ρ	с	EN
A	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	240.0	construction timber (60/; e=*)	0.120	50	450	1.600	D
D	240.0	mineral wool [040; ≥16; <1000 °C]	0.040	1	16	1.030	A1
E	19.0	particleboard P4	0.130	50 - 100	700	1.700	D
F		vapour barrier sd≥ 2m			1000		
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; \geq 16; <1000 °C] or air layer in type 02	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

45.9

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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		0.188	0.084	3,58E-6	0.031	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[MJ]	[M]	[LM]	[LM]	[MJ]	[M]
A1 - A3	89.100	669.624	758.724	695.410	57.446	752.856

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.