

Designation: awropi04b-10 8/2/23 Last updated:

Holzforschung Austria Source:

Editor: HFA, SP

External wall - awropi04b-10

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

Performance rating

REI from inside 60 Fire protection performance RFI from outside 60 maximum ceiling height = 3 m; maximum load $E_{d,fi}$ = 32,0 kN/m Classified by HFA

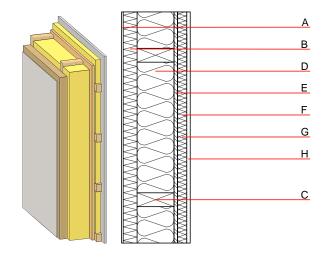
Thermal performance Calculated by HFA	U Diffusion	0.19 W/(m ² K) suitable	
Acoustic performance	R _w (C;C _{tr}) L _{n,w} (C _l)	52(-2;-9) dB	-

Vertical battens for the dry lining screwed onto the ledger beams lead to an Rw(C;Ctr)=50(-1;-7) dB

Assessed by MA39

Mass per unit area

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)

 61.00 kg/m^2

	Thickness	Building material	Thermal pe	rformance			Reaction to fire
			λ	μ min – max	ρ	С	EN
Α	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	160.0	construction timber (60/; e=*)	0.120	50	450	1.600	D
D	160.0	sheep wool [0,041; R=26]	0.041	1	30	1.720	Е
E	18.0	OSB (sealed with airtight tape)	0.130	200	600	1.700	D
F	40.0	spruce wood cross battens (a=400) or battens offset)	0.120	50	450	1.600	D
G	40.0	sheep wool [0,041; R=26] or air layer in type 02	0.041	1	30	1.720	E
Н	15.0	gypsum plaster board type DF or	0.250	10	800	1.050	A2
Н	15.0	gypsum fibre board	0.320	21	1000	1.100	A2

Sustainability rating (per m²)

Calculated by HFA

Database ecoinvent 013_{Kon} 32.1

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.



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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		0.133	0.059	3,09E-6	0.023	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]
A1 - A3	99.895	698.826	798.722	530.441	37.858	568.300