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Designation: Last updated: Source: Editor:

awropi20a-13 8/2/23 Holzforschung Austria HFA, SP

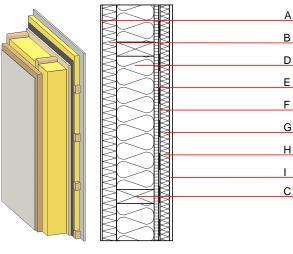
External wall - awropi20a-13

Calculation based on gypsum plaster board type DF

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

Performance rating

Fire protection performance	REI from inside REI from outside	60 90
maximum ceiling height = Classified by HFA	= 3 m; maximum load E _{d,f}	_i = 32,0 kN/m
Thermal performance	U Diffusion	0.15 W∕(m ² K) suitable
Calculated by HFA		
Acoustic performance	R _w (C;C _{tr}) L _{n,w} (C _l)	53(-3;-11) dB
vertical battens for the dr Rw(C;Ctr)=51(-2;-8) dB Assessed by MA39	y lining screwed onto the	structural timber lead to an
Mass per unit area	m	75.60 kg∕m²



Note: e=625

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

	Thickness	Building material	Thermal performance				
			λ	µ min – max	ρ	с	EN
A	7.0	plaster	1.000	10 - 35	2000	1.130	A1
В	100.0	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	mineral wool [040; ≥16; <1000 °C]	0.040	1	16	1.030	A1
E	19.0	particleboard	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; ≥16; <1000 °C] or air layer in type 02	0.040	1	16	1.030	A1
	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2
1	12.5	gypsum fibre board	0.320	21	1000	1.100	A2

Sustainability rating (per m²)

Database ecoinvent

OI3_{Kon}

Calculated by HFA

48.4

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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		0.197	0.089	3,79E-6	0.032	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[MJ]	[M]	[LM]	[LM]	[MJ]	[LM]
A1 - A3	93.193	770.737	863.929	747.326	72.938	820.264

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.