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Designation: Last updated: Source: Editor: awropi01a-03 8/2/23 Holzforschung Austria HFA, SP

> A C E F G H J

External wall - awropi01a-03

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 30	
maximum ceiling height = Classified by HFA	= 3 m; maximum load E _{d,f}	_i = 19,2 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)	45(-2;-6) dB	
Vertical battens for the dr Rw(C;Ctr)=42(-1;-5) dB Assessed by MA39	y lining screwed onto the	ledger beams lead to an	
Mass per unit area	m	52.90 kg∕m ²	

Calculation based on GF

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
٩	4.0	plaster	1.000	10 - 35	2000	1.130	A1
3	50.0	Polystyrene EPS-F [0,040]	0.040	20 - 50	17	1.450	E
2	16.0	particleboard	0.130	50 - 100	700	1.700	D
)	200.0	construction timber (60/; e^{+})	0.120	50	450	1.600	D
1	200.0	mineral wool [040; ≥16; <1000 °C]	0.040	1	16	1.030	A1
-	16.0	particleboard	0.130	50 - 100	700	1.700	D
Ĵ		vapour barrier sd≥ 17m			1000		
H	40.0	spruce wood cross battens (a=400) or battens offset)	0.120	50	450	1.600	D
	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
	12.5	gypsum fibre board	0.320	21	1000	1.100	A2

Sustainability rating (per m²)

Database ecoinvent

OI3_{Kon}

Calculated by HFA

35.4

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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		0.137	0.058	2,36E-6	0.031	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[MJ]	[M]	[LM]	[LM]	[MJ]	[LM]
A1 - A3	55.876	484.067	539.943	527.300	79.102	606.402

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.