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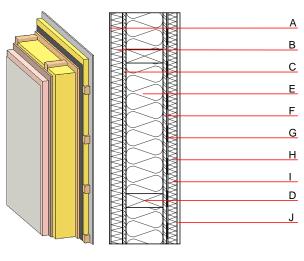
Designation: Last updated: Source: Editor: awropi07a-04 8/2/23 Holzforschung Austria HFA, SP

External wall - awropi07a-04

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

Performance rating

Fire protectionREI from inside60performanceREI from outside30maximum ceiling height = 3 m; maximum load Ed,fi = 32,0 kN/mClassified by HFA								
Thermal performance Calculated by HFA	U Diffusion	0.13 W/(m ² K) suitable						
Acoustic performance	R _w (C;C _{tr}) L _{n,w} (C _I)	48(-3;-6) dB						
vertical battens for the dry lining screwed onto the structural timber lead to an Rw(C;Ctr)=45(-1;-5) dB Assessed by MA39								
Mass per unit area	m	54.70 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	rformance			Reaction to fire
			λ	µ min – max	ρ	с	EN
١	4.0	plaster	1.000	10 - 35	2000	1.130	A1
;	50.0	Polystyrene EPS-F [0,040]	0.040	20 - 50	17	1.450	E
2	15.0	fibreboard (MDF)	0.140	11	600	1.700	D
)	240.0	construction timber (60/; $e=*$)	0.120	50	450	1.600	D
	240.0	mineral wool [040; ≥16; <1000 °C]	0.040	1	16	1.030	A1
	15.0	OSB	0.130	200	600	1.700	D
j		vapour barrier sd≥ 9m			1000		
ł	40.0	spruce wood cross battens (a=400) or battens offset)	0.120	50	450	1.600	D
	40.0	mineral wool [040; \geq 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

36.8

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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		0.155	0.065	2.58E-6	0.029	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[LM]	[M]	[LM]	[LM]	[MJ]	[LM]
A1 - A3	96.658	523.270	619.928	520.269	66.760	587.029

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.