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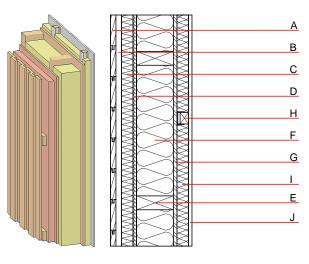
Designation: Last updated: Source: Editor: awrohi01b-09 8/2/23 Holzforschung Austria HFA, SP

External wall - awrohi01b-09

external wall, timber frame construction, not ventilated, with dry lining, with cladding, 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,i}	_{fi} = 19,2 kN/m
Thermal performance	U Diffusion	0.18 W∕(m ² K) suitable
Calculated by HFA		
Acoustic performance	R _w (C;C _{tr}) L _{n,w} (C _l)	54(-2;-8) dB
battens for the dry lining Rw(C;Ctr)=51(-2;-6) dB Assessed by MA39	mounted offset without u	using resilient clips will result in
Mass per unit area	m	83.50 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	rformance			Reaction to fire
			λ	µ min – max	ρ	с	EN
ł	24.0	larch wood external wall cladding	0.155	150	600	1.600	D
3	24.0	spruce wood cross battens	0.120	50	450	1.600	D
2	50.0	wood wool composite boards	0.090	2 - 5	370	2.000	В
)	15.0	fibreboard (MDF)	0.140	11	600	1.700	D
	160.0	construction timber (60/; $e=*$)	0.120	50	450	1.600	D
	160.0	cellulose fibre [040; E]	0.040	1 - 2	55	2.000	E
Ĵ	15.0	OSB (sealed with airtight tape)	0.130	200	600	1.700	D
ł	40.0	spruce wood battens offset mounted on resilient clips	0.120	50	450	1.600	D
	40.0	cellulose fibre [040; E] or air layer in type 02	0.040	1 - 2	55	2.000	E
	15.0	gypsum fibre board or	0.320	21	1000	1.100	A2
	15.0	gypsum plaster board type DF	0.250	10	800	1.050	A2

Sustainability rating (per m²)

Database ecoinvent

OI3_{Kon}

Calculated by HFA

21.4

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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		0.124	0.051	2,11E-6	0.024	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
	[MJ]	[M]	[M]	[MJ]	[MJ]	[MJ]
(Phases)	[1412]					

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.