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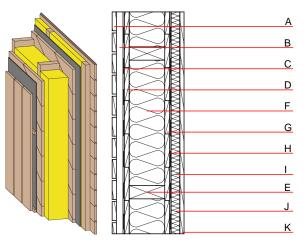
Designation: Last updated: Source: Editor: awrhhi10a-01 8/2/23 Holzforschung Austria HFA, PLB

External wall - awrhhi10a-01

external wall, timber frame construction, not ventilated, with dry lining, with cladding, wooden surface

Performance rating

Fire protection performance maximum ceiling height = Classified by HFA	REI from inside REI from outside 3 m; maximum load $E_{d,fi} = 3$	30 30 32 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 _I)	46(-2;-7) dB
with closed wooden facade Assessed by TGM	R _w von 49 (-3; -10)	
Mass per unit area	m	56.20 kg∕m ²



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
A	19.0	larch wood external wall cladding (open) vertical	0.155	150	600	1.600	D
В	30.0	larch wood cross battens (30/50) - ventilation	0.155	150	600	1.600	D
С		wind barrier			1000		
D	22.0	planking spruce wood diagonal	0.120	50	450	1.600	D
E	200.0	construction timber (60/; e=625)	0.120	50	450	1.600	D
F	200.0	mineral wool [0,35; ≥20; <1000^C]	0.035	1	20	1.030	A1
G	22.0	planking spruce wood diagonal	0.120	50	450	1.600	D
Н		vapour barrier sd≥ 5m			1000		
I	40.0	spruce wood cross battens (a=400) or battens offset)	0.120	50	450	1.600	D
J	40.0	mineral wool [0,35; ≥20; <1000^C]	0.035	1	20	1.030	A1
К	19.0	planking tongue and groove	0.120	50	450	1.600	D

Sustainability rating (per m²)

Database ecoinvent

OI3_{Kon} Calculated by HFA 23.6

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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		0.147	0.067	2,33E-6	0.009	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[LM]	[MJ]	[MJ]	[LM]	[M]	[MJ]
(Thuses)					10.862	

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.