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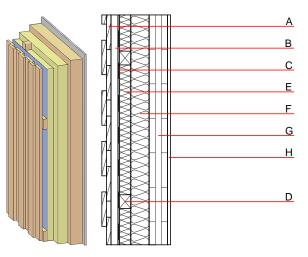
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External wall - awmoho01a-03

external wall, solid wood construction, not ventilated, without dry lining, with cladding, other surface

Performance rating

Fire protection performance maximum ceiling height = 3 Classified by HFA	REI from inside REI from outside 3 m; maximum load E _{d,fi} = 3	60 60 5,0 kN∕m
Thermal performance	U Diffusion	0.21 W/(m ² K) suitable
Calculated by HFA		
Acoustic performance	R _w (C;C _{tr}) L _{n,w} (C _l)	47 dB
Rw+Ctr \ge 38 Assessed by TU-GRAZ		
Mass per unit area	m	62.40 kg/m ²



Note: When using cross laminated timber:

Variation 02-03: d \geq 94,0; at least 3-layers, top layer at least 30mm; variation 00-01: d \geq 78,0; at least 3-layers, top layer at least 25mm without gypsum board lining

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
A	20.0	larch wood external wall cladding	0.155	150	600	1.600	D
В	30.0	spruce wood battens (30/60)	0.120	50	450	1.600	D
С		vapour-permeable membrane $sd \le 0.3 m$					
D	80.0	spruce wood battens (40/50 or 80/60;e=625)	0.120	50	450	1.600	D
E	80.0	mineral wool [040; ≥70; ≥1000°C]	0.040	1	70	1.030	A1
F	80.0	mineral wool [040; ≥70; ≥1000°C]	0.040	1	70	1.030	A1
G	100.0	solid glued wood (e.g. cross laminated timber)	0.130	50	500	1.600	D
Н		without gypsum board lining					

Sustainability rating (per m²)

Database ecoinvent

OI3_{Kon}

Calculated by HFA

49.4

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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		0.265	0.090	2,85E-6	0.103	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
						CA A U
(Phases)	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]

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.