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Designation: Last updated: Source: Editor:

awrhho02a-06 8/2/23 Holzforschung Austria HFA, SP

External wall - awrhho02a-06

external wall, timber frame construction, ventilated, without dry lining, with cladding, other surface

Performance rating

Fire protection performance maximum ceiling height =	REI from inside REI from outside = 3 m; maximum load E _{d f}	60 30 = 32,0 kN∕m		А
Classified by HFA				D
Thermal performance	U Diffusion	0.26 W∕(m ² K) suitable		F
Calculated by HFA	Dirtusion	Suitable		G
Acoustic performance	R _w (C;C _{tr}) L _{n,w} (C _l)	47(-2;-8) dB		н
Battens for the ventilation Rw(C;Ctr)=43(-1;-7) dB Assessed by MA39	n space screwed onto the	structural timber result in an		E
Mass per unit area	m	42.70 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
A	24.0	larch wood external wall cladding	0.155	150	600	1.600	D
В	30.0	spruce wood battens offset (30/50; 30/80) - ventilation	0.120	50	450	1.600	D
С		wind barrier			1000		
D	16.0	particleboard	0.130	50 - 100	700	1.700	D
E	160.0	construction timber (60∕; e=*)	0.120	50	450	1.600	D
F	160.0	cellulose fibre [0,040; R=55]	0.040	1 - 2	55	2.000	В
G	16.0	particleboard	0.130	50 - 100	700	1.700	D
Η		vapour barrier sd≥ 5m			1000		
I	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2
I	12.5	gypsum fibre board	0.320	21	1000	1.100	A2

Sustainability rating (per m²)

Database ecoinvent

OI3_{Kon} Calculated by HFA 19.3

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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		0.100	0.044	1,57E-6	0.025	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[LM]	[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.