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Designation: Last updated: Source: Editor: awrhho03a-03 8/2/23 Holzforschung Austria HFA, SP

> A B C E F G H

> D

External wall - awrhho03a-03

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

Performance rating

Fire protectionREl from inside60performanceREl from outside30maximum ceiling height = 3 m; maximum load Ed,fi = 32,0 kN/mClassified by HFA									
Thermal performance	U Diffusion	0.18 W/(m ² K) suitable							
Acoustic performance	R _w (C;C _{tr}) L _{n,w} (C _I)	49(-2;-8) dB							
Battens for the ventilation space screwed onto the structural timber result in an $Rw(C;Ctr)=45(-1;-7) dB$ Assessed by MA39									
Mass per unit area	m	42.60 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 performance			Reaction to fire	
			λ	µ min – max	ρ	с	EN
١	24.0	larch wood external wall cladding	0.155	150	600	1.600	D
3	30.0	spruce wood battens offset (30/50; 30/80) - ventilation	0.120	50	450	1.600	D
;	15.0	OSB	0.130	200	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
5		vapour barrier sd≥ 10m			1000		
ł	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2
ł	12.5	gypsum fibre board	0.320	21	1000	1.100	A2

Sustainability rating (per m²)

Database ecoinvent

OI3_{Kon}

Calculated by HFA

25.3

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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		0.130	0.057	2,31E-6	0.027	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[MJ]	[MJ]	[LM]	[LM]	[M]	[LM]
A1 - A3	137.340	689.277	826.616	427.932	23.973	451.906

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.