# dataholz.eu

Designation: Last updated: Source: Editor: awrhho04a-02 8/2/23 Holzforschung Austria HFA, SP

## External wall - awrhho04a-02

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

#### Performance rating

Fire protection performance	REI from inside REI from outside	30 30
maximum ceiling height = Classified by HFA	3 m; maximum load E <sub>d,f</sub>	<sub>i</sub> = 19,2 kN∕m
Thermal performance	U Diffusion	0.22 W/(m <sup>2</sup> K) suitable
Calculated by HFA		
Acoustic performance	R <sub>w</sub> (C;C <sub>tr</sub> ) L <sub>n,w</sub> (C <sub>l</sub> )	46(-2;-8) dB
Battens for the ventilation Rw(C;Ctr)=42(-1;-7) dB Assessed by MA39	space screwed onto the	structural timber result in an
Mass per unit area	m	37.90 kg/m <sup>2</sup>
Calculation based on GF		

### 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
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
;		wind barrier			1000		
)	12.5	gypsum fibre board	0.320	21	1000	1.100	A2
	200.0	construction timber (60/; e=*)	0.120	50	450	1.600	D
	200.0	mineral wool [040; ≥16; <1000 °C]	0.040	1	16	1.030	A1
;		vapour barrier sd≥ 2m			1000		
ł	12.5	gypsum fibre board or	0.320	21	1000	1.100	A2
ł	12.5	gypsum plaster board type DF	0.250	10	800	1.050	A2

### Sustainability rating (per m<sup>2</sup>)

#### Database ecoinvent

Calculated by HFA

OI3<sub>Kon</sub>

22.4

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### Details of sustainability rating

#### Database ecoinvent

Lifecycle	GWP	AP	EP	ODP	POCP	
(Phases)	[kg CO <sub>2</sub> -e.]	[kg SO <sub>2</sub> -e.]	[kg PO <sub>4</sub> -e.]	[kg R11-e.]	[kg Ethen-e.]	
A1 - A3		0.100	0.047	2,05E-6	0.019	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[M]	[LM]	[LM]	[LM]	[MJ]	[M]
A1 - A3	93.296	394,106	487.402	354.979	10.862	365.841

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.