# dataholz.eu

Designation: Last updated: Source: Editor: awroho03a-00 8/2/23 Holzforschung Austria HFA, SP

### External wall - awroho03a-00

external wall, timber frame construction, not ventilated, without dry lining, with cladding, other surface

#### Performance rating

e protection formance	REI from inside REI from outside	60 30
maximum ceiling height = Classified by HFA	= 3 m; maximum load E <sub>d,f</sub>	<sub>ï</sub> = 32,0 kN∕m
Thermal performance	U Diffusion	0.21 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>I</sub> )	50(-2;-7) dB
Vertical external battens s Rw(C;Ctr)=46(-1;-5) dB Assessed by MA39	screwed onto the ledger b	eams lead to an
Mass per unit area	m	66.60 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 performance					
			λ	µ min – max	ρ	с	EN	
4	24.0	larch wood external wall cladding	0.155	150	600	1.600	D	
3	65.0	spruce wood cross battens	0.120	50	450	1.600	D	
2	50.0	wood wool composite boards	0.090	2 - 5	370	2.000	В	
D	16.0	particleboard	0.130	50 - 100	700	1.700	D	
=	160.0	construction timber (60/; e=*)	0.120	50	450	1.600	D	
-	160.0	mineral wool [040; ≥16; <1000 °C]	0.040	1	16	1.030	A1	
5	12.0	particleboard	0.130	50 - 100	700	1.700	D	
Η		vapour barrier sd≥ 10m			1000			
	12.5	gypsum fibre board or	0.320	21	1000	1.100	A2	
	12.5	gypsum plaster board type DF	0.250	10	800	1.050	A2	

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

Database ecoinvent

OI3<sub>Kon</sub>

Calculated by HFA

25.4

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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		0.118	0.051	2,18E-6	0.028	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[MJ]	[MJ]	[LM]	[LM]	[M]	[LM]
A1 - A3	93.403	729.597	823.000	465.313	41.362	506.676

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.