External wall - awropi25a-01
external wall, timber frame construction, not ventilated, with dry lining, with rendering, wooden surface

Performance rating

Fire protection performance	REI from inside	30
	REI from outside	90

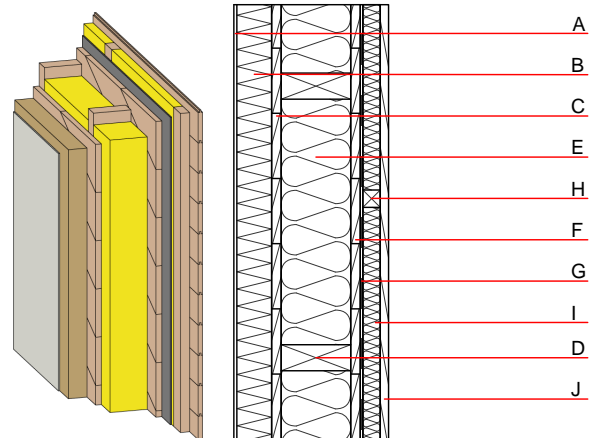maximum ceiling height = 3 m; maximum load $E_{d,fi}$ = 32,0 kN/m
Classified by HFA

Thermal performance	U	0.12 W/(m²K)
	Diffusion	suitable

Calculated by HFA

Acoustic performance	R_w (C;C_{tr})	51(-3;-10) dB
	$L_{n,w}$ (C_I)	

Assessed by TGM

Mass per unit area	m	71.30 kg/m²

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	c	EN
A	7.0	plaster	1.000	10 - 35	2000	1.130	A1
B	80.0	WF-PT [042; 180]	0.042	3 - 7	180	2.100	E
C	22.0	planking spruce wood diagonal	0.120	50	450	1.600	D
D	200.0	construction timber (60/..; e=625)	0.120	50	450	1.600	D
E	200.0	mineral wool [0,35; ≥20; <1000^C]	0.035	1	20	1.030	A1
F	22.0	planking spruce wood diagonal	0.120	50	450	1.600	D
G		vapour barrier sd≥ 6m			1000		
H	40.0	spruce wood cross battens (a=400) or battens offset)	0.120	50	450	1.600	D
I	40.0	mineral wool [0,35; ≥20; <1000^C]	0.035	1	20	1.030	A1
J	19.0	planking tongue and groove	0.120	50	450	1.600	D

Sustainability rating (per m²)

Database ecoinvent

OI3$_{Kon}$	38.7

Calculated by HFA

dataholz.eu

Designation: awropi25a-01
Last updated: 8/2/23
Source: Holzforschung Austria
Editor: HFA, PLB

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Details of sustainability rating

Database ecoinvent

Lifecycle (Phases)	GWP [kg CO$_2$-e.]	AP [kg SO$_2$-e.]	EP [kg PO$_4$-e.]	ODP [kg R11-e.]	POCP [kg Ethen-e.]	
A1 - A3		0.195	0.088	3,48E-6	0.037	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	157.653	950.247	1107.900	626.973	27.301	654.274

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.

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