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Designation: awmopo01a-03
Last updated: 8/2/23
Source: Holzforschung Austria
Editor: HFA, SP

External wall - awmopo01a-03

external wall, solid wood construction, not ventilated, without dry lining, with rendering, wooden surface

Performance rating

Fire protection performance	**REI from inside**	60
	REI from outside	90

maximum ceiling height = 3 m; maximum load $E_{d,fi}$ = 35,0 kN/m
Classified by HFA

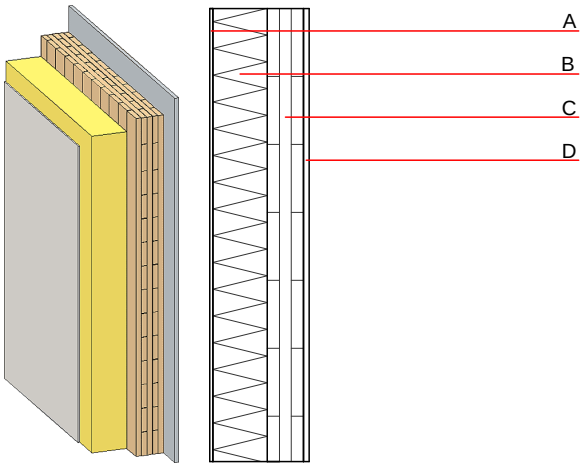
Thermal performance	**U**	0.35 W/(m²K)
	Diffusion	suitable

Calculated by HFA
Calculated by HFA

Acoustic performance	**R_w (C_i;C_{tr})**	49(-3;-8) dB
	$L_{n,w}$ (C_I)	

Assessed by TU-GRAZ

Mass per unit area	**m**	106.00 kg/m²



Note: Cross laminated timber:
Variation 00-03: d ≥ 78,0; at least 3-layers, top layer at least 25 mm; variation 04-07: at least 3-layers, top layer at least 30 mm

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	15.0	plaster	1.000	10 - 35	2000	1.130	A1
B	100.0	multilayer wood wool composite claddingboard (WW-MW-WW)	0.047	2 - 3	200	1.000	B
C	80.0	solid glued wood (e.g. cross laminated timber)	0.130	50	500	1.600	D
D	12.5	gypsum plaster board type DF / gypsum fibre board	0.250	10	800	1.050	A2

Sustainability rating (per m²)

Database ecoinvent

$OI3_{Kon}$	62.2

Calculated by HFA

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		0.288	0.098	3,66E-6	0.097	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	40.010	561.164	601.174	744.432	14.544	758.976