

External wall - awmopi01a-05

external wall, solid wood construction, not ventilated, with dry lining, with rendering, other surface

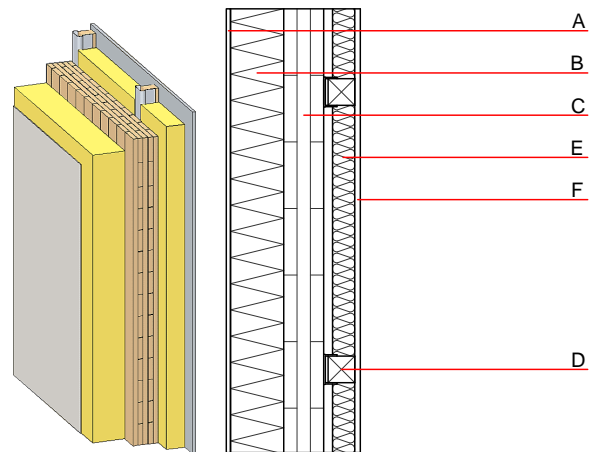
Performance rating

Fire protection performance REI from inside 90
 REI from outside 90
 maximum ceiling height = 3 m; maximum load $E_{d,fi} = 35,0 \text{ kN/m}$
 Classified by HFA

Thermal performance U 0.25 $\text{W}/(\text{m}^2\text{K})$
 Diffusion suitable
 Calculated by HFA

Acoustic performance $R_w (C;C_{tr})$ 50 dB
 $L_{n,w} (C_i)$
 $R_w + C_{tr} \geq 42$
 Assessed by TU-GRAZ

Mass per unit area m 108.70 kg/m^2
 Calculation based on gypsum plaster board type DF



Note: Attention: REI90 (from inside) in Germany possible with 2x12,5mm gypsum plaster board type DF/gypsum fibre board

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 EN
			λ	$\mu \text{ min - max}$	ρ	c	
A	15.0	plaster	1.000	10 - 35	2000	1.130	A1
B	100.0	multilayer wood wool composite board (WW-MW-WW) ETICS insulation panel	0.049	2 - 5	130	1.000	B
C	100.0	cross laminated timber	0.130	50	500	1.600	D
D	70.0	spruce wood battens (60/60) mounted on resilient clips; e=660	0.120	50	450	1.600	D
E	50.0	mineral wool [040; ≥ 16 ; $< 1000^\circ\text{C}$]	0.040	1	16	1.030	A1
F	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2
F	12.5	gypsum fibre board	0.320	21	1000	1.100	A2

Sustainability rating (per m^2)

Database ecoinvent

$OI3_{kon}$ 68.7

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		0.323	0.112	4,31E-6	0.106	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	56.049	738.292	794.341	853.946	17.808	871.754