

External wall - awropi32a-02

external wall, timber frame construction, not ventilated, with dry lining, with rendering, Gipsplatte

Performance rating

Fire protection performance	REI from inside	60
	REI from outside	60
maximum ceiling height = 3 m; maximum load $E_{d,fi} = 32,0 \text{ kN/m}$		
Classified by HFA		

Thermal performance	U	0.17 $\text{W}/(\text{m}^2\text{K})$
	Diffusion	suitable

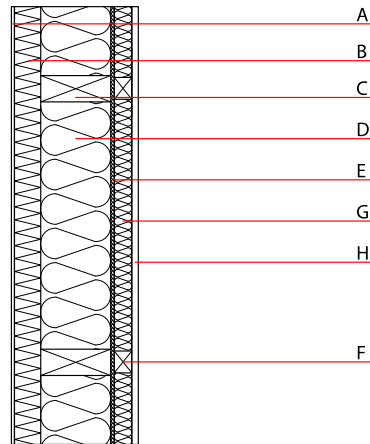
Calculated by HFA

Acoustic performance	$R_w (C;C_{tr})$	43(-1;-6) dB
	$L_{n,w} (C_i)$	

Assessed by HFA

Mass per unit area	m	58.00 kg/m^2
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Calculation based on gypsum plaster board type DF



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	μ min – max	ρ	c	
A	7.0	plaster	1.000	10 - 35	2000	1.130	A1
B	60.0	wood-fibre insulation board WF-PT [048; 180]	0.048	5 - 7	180	2.100	E
C	160.0	construction timber (60/...; e=625)	0.120	50	450	1.600	D
D	160.0	Wood fibre insulation [039; 45]	0.039	1 - 2	45	2.100	E
E	8.0	Funderplan Biofaser (sealed with airtight tape)	0.180	185	1000	1.700	D
F	40.0	spruce wood battens vertical	0.120	50	450	1.600	D
G	40.0	Wood fibre insulation [039; 45]	0.039	1 - 2	45	2.100	E
H	15.0	gypsum plaster board type DF or	0.250	10	800	1.050	A2
H	15.0	gypsum fibre board	0.320	21	1000	1.100	A2

Sustainability rating (per m^2)

Database ecoinvent

$OI3_{Kon}$	29.2
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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		0.122	0.059	2,84E-6	0.018	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	76.512	621.234	697.746	505.212	34.604	539.815