

External wall - awropi23a-01

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

Performance rating

Fire protection performance	REI from inside	60
	REI from outside	90

maximum ceiling height = 3 m; maximum load $E_{d,fi}$ = 19,2 kN/m; REI 90 from the outside
 Classified by HFA

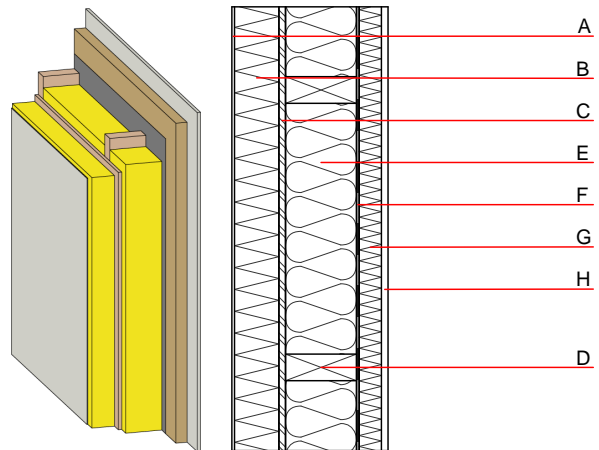
Thermal performance	U	0.12 W/(m ² K)
	Diffusion	suitable

Calculated by HFA

Acoustic performance	R_w (C;C _{tr})	52 dB
	$L_{n,w}$ (C _i)	

Assessed by TGM

Mass per unit area	m	79.50 kg/m ²
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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	6.0	plaster	1.000	10 - 35	2000	1.130	A1
B	100.0	MW-PT FKD-S C2 [036; R=110]	0.036	1	110	1.030	A1
C	15.0	OSB	0.130	200	600	1.700	D
D	200.0	construction timber (60/...; e=625)	0.120	50	450	1.600	D
E	200.0	glass wool UNIFIT [037; R=14]	0.037	1	14	1.030	A1
F		vapour barrier sd \geq 14m					
G	50.0	Heraklith BM	0.090	2 - 5	370	2.000	B
H	15.0	plaster	0.700	10	1300	1.000	A1

Sustainability rating (per m²)

Database ecoinvent

013 _{Kon}	60.8
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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		0.265	0.092	3,50E-6	0.074	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	93.379	403.787	497.166	700.583	15.758	716.341