

External wall - awropi21a-02

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

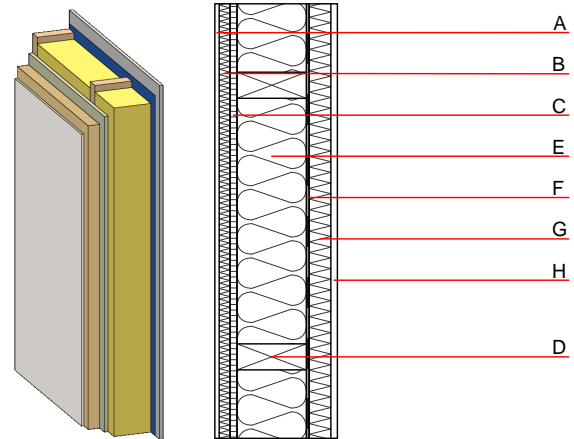
Performance rating

Fire protection performance REI from inside 60
 maximum ceiling height = 3 m; maximum load $E_{d,fi} = 19,2 \text{ kN/m}$
 Classified by HFA

Thermal performance U Diffusion 0.19 $\text{W}/(\text{m}^2\text{K})$ suitable
 Calculated by HFA

Acoustic performance $R_w (C;C_{tr})$ 52(-3;-12) dB
 $L_{n,w} (C_i)$
 Assessed by TGM

Mass per unit area m 85.30 kg/m^2
 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	10.0	plaster	1.000	10 - 35	2000	1.130	A1
B	25.0	Heraklith BM	0.090	2 - 5	370	2.000	B
C	16.0	particleboard P5	0.130	50 - 100	700	1.700	D
D	200.0	construction timber (60/...; e=625)	0.120	50	450	1.600	D
E	200.0	Heralan KP	0.040	1	28	1.030	A1
F		vapour barrier $sd \geq 9\text{m}$			1000		
G	50.0	Heraklith BM	0.090	2 - 5	370	2.000	B
H	15.0	gypsum plaster board type DF	0.250	10	800	1.050	A2

Sustainability rating (per m^2)

Database ecoinvent

OI_{kon} 37.8

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		0.161	0.055	2,53E-6	0.046	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	60.793	475.954	536.747	512.344	29.823	542.167