

External wall - awropi23a-02

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

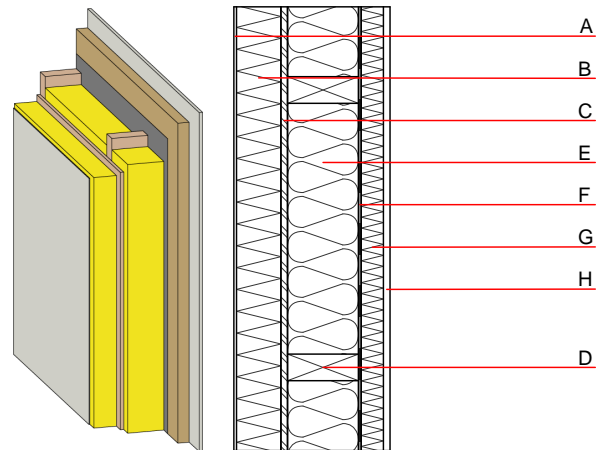
Performance rating

Fire protection performance REI from inside 60
 REI from outside 90
 maximum ceiling height = 3 m; maximum load $E_{d,fi} = 19,2 \text{ kN/m}$; REI 90 from the outside
 Classified by HFA

Thermal performance U 0.11 $\text{W}/(\text{m}^2\text{K})$
 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 81.80 kg/m^2



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	240.0	construction timber (60/...; e=625)	0.120	50	450	1.600	D
E	240.0	glass wool UNIFIT [037; R=14]	0.037	1	14	1.030	A1
F		vapour barrier $s_{d} \geq 14\text{m}$					
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 m^2)

Database ecoinvent

OI_{kon} 64.3

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		0.280	0.099	3,76E-6	0.077	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	100.832	435.232	536.064	746.816	15.758	762.573