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Designation: awropi23a-00
Last updated: 8/2/23
Source: Knauf Insulation GmbH
Editor: HFA, PLB

External wall - awropi23a-00

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

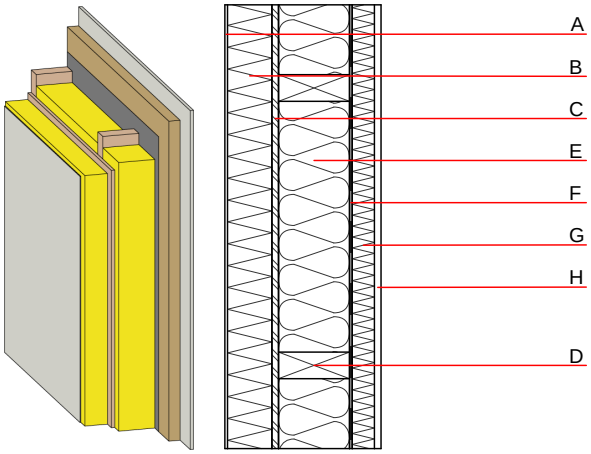
Thermal performance	**U**	0.14 W/(m²K)
	Diffusion	suitable

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**	77.30 kg/m²



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
			λ	μ min – max	ρ	c	EN
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	160.0	construction timber (60/..; e=625)	0.120	50	450	1.600	D
E	160.0	glass wool UNIFIT [037; R=14]	0.037	1	14	1.030	A1
F		vapour barrier sd≥ 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

$OI3_{Kon}$	57.3

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		0.250	0.085	3,24E-6	0.072	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	85.926	372.341	458.267	654.351	15.758	670.108