

Designation: awropi17a-06 8/2/23 Last updated:

Holzforschung Austria Source:

Editor: HFA, SP

External wall - awropi17a-06

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

Performance rating

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

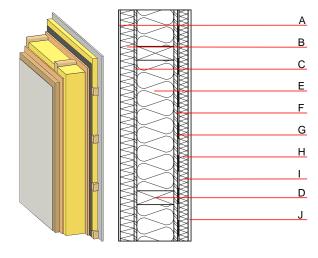
Thermal performance Calculated by HFA	U Diffusion	0.12 W/(m ² K) suitable
Acoustic performance	R _w (C;C _{tr}) L _{n,w} (C _I)	54(-3;-10) dB

Vertical battens for the dry lining screwed onto the ledger beams lead to an Rw(C;Ctr)=51(-1;-7) dB

Assessed by MA39

Mass per unit area 77.70 kg/m^2

Calculation based on gypsum plaster board type DF



Note: e=625

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	С	EN	
A	7.0	plaster	1.000	10 - 35	2000	1.130	A1	
3	60.0	wood-fibre insulation board WF-PT [045; 180]	0.045	5 - 7	180	2.100	E	
2	12.0	OSB	0.130	200	600	1.700	D	
)	240.0	construction timber (60/; e=*)	0.120	50	450	1.600	D	
	240.0	mineral wool [040; ≥16; <1000°C]	0.040	1	16	1.030	A1	
=	15.0	OSB	0.130	200	600	1.700	D	
G		vapour barrier sd≥ 10m			1000			
1	80.0	spruce wood cross battens (a=400) or battens offset)	0.120	50	450	1.600	D	
	80.0	mineral wool [040; ≥16; <1000°C]	0.040	1	16	1.030	A1	
	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2	
	12.5	gypsum fibre board	0.320	21	1000	1.100	A2	

Sustainability rating (per m²)

Database ecoinvent 013_{Kon} 48.1 Calculated by HFA

dataholz.eu - Catalogue of timber building materials, components and component connections reviewed to consider thermal, acoustic, fire performance requirements and ecological drivers for timber construction released by accredited testing institutes.



Designation: awropi17a-06 Last updated:

8/2/23 Holzforschung Austria Source:

HFA, SP Editor:

Details of sustainability rating

Database ecoinvent

Lifecycle	GWP	AP	EP	ODP	POCP	
(Phases)	[kg CO ₂ -e.]	[kg SO ₂ -e.]	[kg PO ₄ -e.]	[kg R11-e.]	[kg Ethen-e.]	
A1 - A3		0.210	0.093	3,97E-6	0.033	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[MJ]	[MI]	[MJ]	[MJ]	[MJ]	[MJ]
A1 - A3	142.262	780.295	922.557	722.608	49.566	772.174