# dataholz.eu

Designation: Last updated: Source: Editor: awropi20a-11 8/2/23 Holzforschung Austria HFA, SP

> A B C F G H I C

### External wall - awropi20a-11

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

### Performance rating

Mass per unit area

Fire protection performance	REI from inside REI from outside	60 60
maximum ceiling height = Classified by HFA	= 3 m; maximum load E,	<sub>d,fi</sub> = 32,0 kN∕m
Thermal performance	U Diffusion	0.18 W∕(m <sup>2</sup> K) suitable
Calculated by HFA		
Acoustic performance	R <sub>w</sub> (C;C <sub>tr</sub> ) L <sub>n,w</sub> (C <sub>l</sub> )	52(-3;-11) dB
vertical battens for the dr Rw(C;Ctr)=50(-2;-8) dB Assessed by MA39	y lining screwed onto th	e structural timber lead to an

Calculation based on gypsum plaster board type DF

m

Note: e=400

#### Register of building materials used for this application, cross-section (from outside to inside, dimensions in mm)

69.80 kg/m<sup>2</sup>

	Thickness	Building material	Thermal performance				Reaction to fire	
			λ	µ min – max	ρ	с	EN	
Ą	7.0	plaster	1.000	10 - 35	2000	1.130	A1	
В	60.0	wood-fibre insulation board WF-PT [045; 180]	0.045	5 - 7	180	2.100	E	
2	160.0	construction timber (60/; $e=*$ )	0.120	50	450	1.600	D	
D	160.0	mineral wool [040; ≥16; <1000°C]	0.040	1	16	1.030	A1	
E	19.0	particleboard	0.130	50 - 100	700	1.700	D	
F		vapour barrier sd $\geq$ 2m			1000			
5	40.0	spruce wood cross battens (a=400) or battens offset)	0.120	50	450	1.600	D	
H	40.0	mineral wool [040; ≥16; <1000°C] or air layer in type 02	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 m<sup>2</sup>)

Database ecoinvent

OI3<sub>Kon</sub>

Calculated by HFA

39.7

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#### Details of sustainability rating

#### Database ecoinvent

Lifecycle	GWP	AP	EP	ODP	POCP	
(Phases)	[kg CO <sub>2</sub> -e.]	[kg SO <sub>2</sub> -e.]	[kg PO <sub>4</sub> -e.]	[kg R11-e.]	[kg Ethen-e.]	
A1 - A3		0.166	0.074	3,15E-6	0.029	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[LM]	[MJ]	[MJ]	[LM]	[M]	[MJ]
		677.486	764.516	622.738	57.446	680.183

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. These datasheets will generally be accepted as proofs of compliance by building authorities.