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## External wall - awropi27a-01

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

### Performance rating

Fire protection performance	REI from inside REI from outside	60 30
maximum ceiling height = Classified by HFA	= 3 m; maximum load E <sub>d,fi</sub>	<sub>i</sub> = 32,0 kN∕m
Thermal performance	U Diffusion	0.16 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> )	44(-3;-6) dB
If battens for the dry lining timber the result is Rw≥41 Assessed by HFA		y and screwed to the structural
Mass per unit area	m	42.10 kg/m <sup>2</sup>

### 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	
١.	4.0	plaster	1.000	10 - 35	2000	1.130	A1	
1	120.0	Polystyrene EPS-F [0,040]	0.040	20 - 50	17	1.450	E	
;	15.0	OSB	0.130	200	600	1.700	D	
)	140.0	construction timber (60/; e=625)	0.120	50	450	1.600	D	
	140.0	mineral wool [038; ≥33; ≥1000°C]	0.038	1	33	1.030	A1	
		vapour barrier sd≥ 23m			1000			
j	40.0	spruce wood cross battens 40/60mm (a=400)	0.120	50	450	1.600	D	
ł	40.0	air layer	0.000	1	1	1.008		
	16.0	Kronospan OSB-Firestop	0.110	150 - 170	660	1.700	В	

#### Sustainability rating (per m<sup>2</sup>)

#### Database ecoinvent

OI3<sub>Kon</sub>

Calculated by HFA

37.7

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Designation: Last updated: Source: Editor: awropi27a-01 8/2/23 KRONOSPAN OSB, spol. s r. o. HFA, SP

#### 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		0.157	0.047	1.87E-6	0.054	
1 if a sural a	PERE	PERM	PERT	PENRE	PENRM	PENRT
Lifecycle	I LILL					
(Phases)	[MJ]	[M]	[LM]	[LM]	[MJ]	[M]

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.