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Designation: awrhho12a-02
Last updated: 8/2/23
Source: KRONOSPAN OSB, spol. s r. o.
Editor: HFA, SP

External wall - awrhho12a-02

external wall, timber frame construction, ventilated, without dry lining, with cladding, wooden surface

Performance rating

Fire protection performance	**REI from inside**	30
	REI from outside	30

maximum ceiling height = 3 m; maximum load $E_{d,fi}$ = 32 kN/m
Classified by HFA

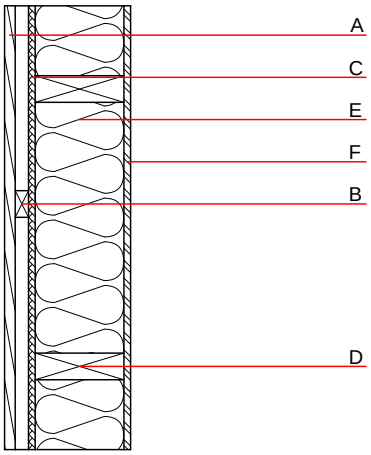
Thermal performance	**U**	0.21 W/(m²K)
	Diffusion	suitable

Calculated by HFA

Acoustic performance	**R_w (C_i;C_{tr})**	45(-2;-8) dB
	$L_{n,w}$ (C_I)	

If battens for the dry lining are carried out vertically and screwed to the structural timber the result is Rw≥42dB
Assessed by HFA

Mass per unit area	**m**	53.40 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	24.0	larch wood external wall cladding	0.155	150	600	1.600	D
B	30.0	spruce wood battens offset (30/50; 30/80) - ventilation	0.120	50	450	1.600	D
C	15.0	fibreboard (MDF)	0.140	11	600	1.700	D
D	200.0	construction timber (60/..; e=625)	0.120	50	450	1.600	D
E	200.0	Cellulose fibre [040; 50]	0.040	1	50	2.000	E
F	16.0	Kronospan OSB-Firestop	0.110	150 - 170	660	1.700	B

Sustainability rating (per m²)

Database ecoinvent

$OI3_{Kon}$	14.8

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		0.103	0.043	1,37E-6	0.021	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	70.700	800.414	871.113	290.847	30.578	321.424