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Designation: awrhho13a-00
Last updated: 8/2/23
Source: Saint-Gobain Austria GmbH
Editor: HFA, SP

External wall - awrhho13a-00

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

Performance rating

Fire protection performance	**REI from inside**	90
	REI from outside	90

maximum ceiling height = 3 m; maximum load $E_{d,fi}$ = 27 kN/m
Classified by HFA

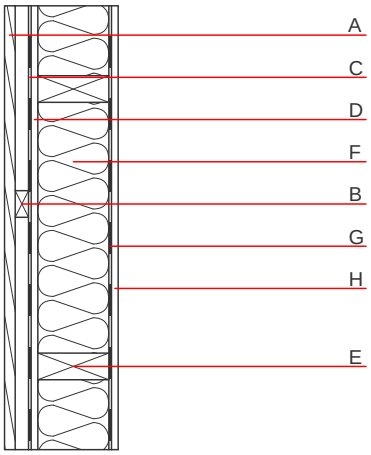
Thermal performance	**U**	0.22 W/(m²K)
	Diffusion	suitable

Calculated by IBO

Acoustic performance	**R_w ($C;C_{tr}$)**	43 dB
	$L_{n,w}$ (C_I)	

The acoustic insulation assessment is based on a length-related flow resistance of r≥5 kPa.s/m². If this value is lower for the insulation material used, the Rw value is reduced by 3dB.
Assessed by TGM

Mass per unit area	**m**	54.90 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		wind barrier			1000		
D	15.0	Rigips Riduro	0.250	4 - 10	1000	1.050	A2
E	160.0	construction timber (60/..; e=625)	0.120	50	450	1.600	D
F	160.0	ISOVER Ultimate	0.035	1	20	1.030	A1
G		vapour barrier sd≥ 2m			1000		
H	15.0	Rigips Riduro	0.250	4 - 10	1000	1.050	A2

Sustainability rating (per m²)

Database ecoinvent

$OI3_{Kon}$	23.2

Calculated by IBO

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		0.099	0.046	2,20E-6	0.019	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	83.417	379.641	463.058	361.479	12.201	373.680