dataholz.eu

Designation: Last updated: Source: Editor:

awrhhi11a-06 8/2/23 Holzforschung Austria HFA, PLB

External wall - awrhhi11a-06

external wall, timber frame construction, ventilated, with dry lining, with cladding, other surface

Performance rating

Fire protection performance	REI from inside REI from outside	60 60						
maximum ceiling height = 3 m; maximum load E _{d,fi} = 19,2 kN∕m Classified by HFA								
Germany								
F30 (from inside/from outside)								
Load $E_{d,fi}$ according to the	Load $E_{d,fi}$ according to the German certification document							
Corresponding proof: DIN 4102-4:2016-05, Tabelle 10.6, Zeile 12								
Thermal performance	U Diffusion	0.16 W∕(m ² K) suitable						
Calculated by TUM								
Acoustic performance	R _w (C;C _{tr}) L _{n,w} (C _l)	60(-1;-6) dB						
Assessed by Müller-BBM								
Mass per unit area	m	66 20 kg/m ²						



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

	Thickness	Building material	Thermal per	Reaction to fire			
			λ	µ min – max	ρ	с	EN
А	24.0	larch wood external wall cladding	0.155	150	600	1.600	D
В	30.0	spruce wood battens offset (30/50; 30/80) - ventilation	0.120	50	450	1.600	D
С		wind barrier			1000		
D	12.5	gypsum fibre board	0.320	21	1000	1.100	A2
Е	240.0	construction timber (60/; e=625)	0.120	50	450	1.600	D
F	240.0	mineral wool [040; 30; ≥1000 °C]	0.040	1	30	1.030	A1
G		vapour barrier sd≥ 5m			1000		
Н	12.5	gypsum plaster board type DF	0.250	10	800	1.050	A2
I	40.0	spruce wood cross battens (a=400) \ge 40mm	0.120	50	450	1.600	D
J	40.0	mineral wool [040; 30; ≥1000°C] ≥40mm	0.040	1	30	1.030	A1
Κ	12.5	gypsum plaster board type A	0.250	4 - 10	680	1.050	A2

Sustainability rating (per m²)

Database ecoinvent		Database GaBi (ÖKOBAUDAT)			
Ol3_{Kon} Calculated by HFA	35.2	Built-in renewable materials Biogenic carbon in kg CO ₂ -e. Energy use of Primary Energy Share of renewable PE	kg kg CO ₂ MJ %	28.510 41.650 502.450 29.59	
		Calculated by TUM			

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.

dataholz.eu

Designation: Last updated: Source: Editor: awrhhi11a-06 8/2/23 Holzforschung Austria HFA, PLB

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		0.176	0.054	2,14E-6	0.036	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[MJ]	[MJ]	[M]	[LM]	[MJ]	[MJ]
A1 - A3	74.697	476.338	551.035	429.604	10.862	440.467

Database GaBi (ÖKOBAUDAT)

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		0.117	0.018	1,00E-6	0.012	
C1 - C4		0.004	0.003	1,34E-7	0.001	
A1 - C4		0.126	0.023	1,16E-6	0.013	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[LM]	[M]	[LM]	[LM]	[MJ]	[M]
A1 - A3	147.019	509.479	656.358	320.896	50.309	371.320
C1 - C4	0.489	-492.448	-491.959	15.664	-0.119	15.540
A1 - C4	148.657	17.809	166.325	353.793	50.345	404.250