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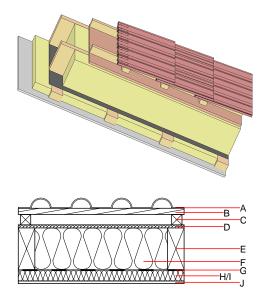
Designation: Last updated: Source: Editor: sdrhzi08a-01 8/2/23 Holzforschung Austria HFA, SP

Pitched roof - sdrhzi08a-01

pitched roof, timber frame construction, ventilated, with dry lining, not suspended, other surface

Performance rating

Fire protection performance	REI	30
maximum span = 5 m; ma Classified by HFA	uximum load E _{d,fi} = 3,66 kN/	⁄ m²
Thermal performance	U Diffusion	0.21 W∕(m ² K) suitable
Calculated by HFA		
Acoustic performance	R _w (C;C _{tr}) L _{n,w} (C _l)	49(-4;-10) dB
with a tiled roof Rw = 47 Assessed by TGM	(-4; -10) dB	
Mass per unit area	m	37.00 kg∕m ²
Calculation based on gyps	sum plaster board type DF	



Note: The design of the under-roof construction and of the counterbattens have to be specified according to the roof pitch and the national requirements. I=without insulation

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

	Thickness	Building material	Thermal per	rformance			Reaction to fire
			λ	µ min – max	ρ	с	EN
4		concrete roof tile or tiled roof			2100		A1
3	30.0	spruce wood battens (30/50)	0.120	50	450	1.600	D
2	50.0	spruce wood counter battens (minimum height 50 mm)	0.120	50	450	1.600	D
D	15.0	fibreboard (MDF)	0.140	11	600	1.700	D
-	200.0	construction timber (80/; e=800)	0.120	50	450	1.600	D
-	200.0	mineral wool [040; ≥16; <1000 °C]	0.040	1	16	1.030	A1
Ĵ		vapour barrier sd≥ 1 m			1000		
H	50.0	spruce wood cross battens (50/80;a=400)	0.120	50	450	1.600	D
		air layer	0.000	1	1	1.008	
	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 m²)

Database ecoinvent

OI3_{Kon}

Calculated by HFA

28.0

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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		0.114	0.051	2,44E-6	0.021	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Dhases)	[MJ]	[MJ]	[LM]	[LM]	[M]	[LM]
(Phases)	[]					

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