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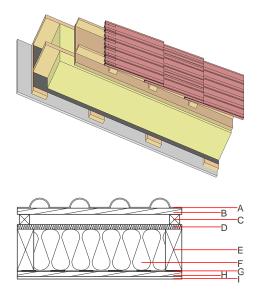
Designation: Last updated: Source: Editor: sdrhzi01a-05 8/2/23 Holzforschung Austria HFA, SP

Pitched roof - sdrhzi01a-05

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	ximum load E _{d,fi} = 3,66 kN/	Ύm²
Thermal performance	U Diffusion	0.20 W∕(m ² K) suitable
Calculated by HFA		
Acoustic performance	R _w (C;C _{tr}) L _{n,w} (C _l)	51(-4;-10) dB
with a tiled roof Rw = 49 (Assessed by TGM	(-4; -10) dB	
Mass per unit area	m	38.50 kg/m ²
Calculation based on gyps	um 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.

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

19.3

	Thickness	Building material	Thermal per	formance			Reaction to fire
			λ	µ min – max	ρ	с	EN
Ą		concrete roof tile or tiled roof			2100		A1
В	30.0	spruce wood battens (30/50)	0.120	50	450	1.600	D
С	50.0	spruce wood counter battens (minimum height 50 mm)	0.120	50	450	1.600	D
D	22.0	softboard [045; 250] - rigid underlay	0.045	5	250	2.100	E
E	200.0	construction timber (80/; e=800)	0.120	50	450	1.600	D
F	200.0	cellulose fibre [040; E]	0.040	1 - 2	55	2.000	E
G		vapour barrier sd≥ 1 m			1000		
Η	24.0	spruce wood cladding with spacing of cladding boards(24/100); a=400	0.120	50	450	1.600	D
	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

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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		0.090	0.040	2,16E-6	0.017	
			DEDT	DENDE	DENID 4	DEMOT
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
Lifecycle (Phases)	PERE [MJ]	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]

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