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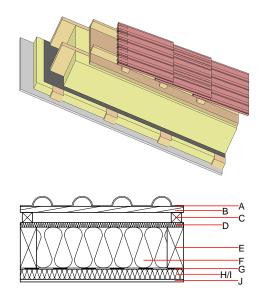
Designation: Last updated: Source: Editor: sdrhzi03a-06 8/2/23 Holzforschung Austria HFA, SP

Pitched roof - sdrhzi03a-06

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

Performance rating

Fire protection performance	REI	30
maximum span = 5 m; max Classified by HFA	timum load E _{d,fi} = 3,66 kN∕	m²
Thermal performance	U Diffusion	0.17 W∕(m ² K) suitable
Calculated by HFA		
Acoustic performance	R _w (C;C _{tr}) L _{n,w} (C _l)	53(-4;-10) dB
with a tiled roof Rw = 51 (Assessed by TGM	4; -10) dB	
Mass per unit area	m	42.70 kg/m ²
Calculation based on gypsu	Im 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)

	Thickness	Building material	Thermal per	formance			Reaction to fire
			λ	µ min – max	ρ	с	EN
4		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		
Н	50.0	spruce wood cross battens (50/80;a=400)	0.120	50	450	1.600	D
	50.0	cellulose fibre [040; E]	0.040	1 - 2	55	2.000	E
J	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2
J	12.5	gypsum fibre board	0.320	21	1000	1.100	A2

Sustainability rating (per m²)

Database ecoinvent

OI3_{Kon}

Calculated by HFA

20.5

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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		0.099	0.044	2,28E-6	0.018	
	0505	DEDM	PERT	PENRE	PENRM	PENRT
Lifecycle	PERE	PERM	PERI	FEINRE	PEINKINI	PEINKI
Lifecycle (Phases)	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]

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.