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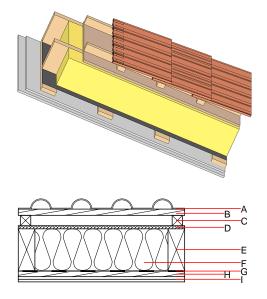
Designation: Last updated: Source: Editor: sdrhzi05b-02 8/2/23 Holzforschung Austria HFA, SP

Pitched roof - sdrhzi05b-02

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

Performance rating

Fire protection performance	REI	60
maximum span = 5 m; max Classified by HFA	ximum load E _{d,fi} = 3,66 kN∕	m²
Thermal performance	U Diffusion	0.18 W∕(m ² K) suitable
Calculated by HFA		
Acoustic performance	R _w (C;C _{tr}) L _{n,w} (C _I)	52(-3;-9) dB
with a tiled roof Rw = 50 (Assessed by TGM	-3; -9) dB	
Mass per unit area	m	47.60 kg/m ²
Calculation based on gypsu	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)

	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
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
C	15.0	fibreboard (MDF)	0.140	11	600	1.700	D
=	240.0	construction timber (80/; e=800)	0.120	50	450	1.600	D
-	240.0	mineral wool [040; ≥16; <1000°C]	0.040	1	16	1.030	A1
Ĵ		vapour barrier sd≥ 1 m			1000		
4	24.0	spruce wood cladding with spacing of cladding boards(24/100); a=400	0.120	50	450	1.600	D
	25.0	gypsum plaster board type DF (2x12,5 mm) or	0.250	10	800	1.050	A2
	25.0	gypsum fibre board (2x12,5 mm)	0.320	21	1000	1.100	A2

Sustainability rating (per m²)

Database ecoinvent

OI3_{Kon}

Calculated by HFA

30.3

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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		0.124	0.057	2,85E-6	0.021	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[LM]	[MJ]	[MJ]	[LM]	[M]	[MJ]
		466.098	545.446	464.467	22.510	486.977

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.