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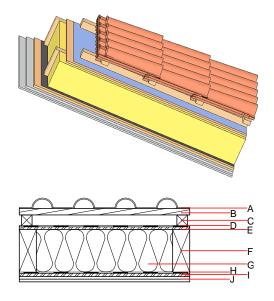
Designation: Last updated: Source: Editor: sdrhzo02b-02 8/2/23 Holzforschung Austria HFA, SP

# Pitched roof - sdrhzo02b-02

pitched roof, timber frame construction, ventilated, without dry lining, directly, other surface

### Performance rating

Fire protection performance	REI	60
maximum span = 5 m; max Classified by HFA	kimum load E <sub>d,fi</sub> = 3,66 kN∕	m²
Thermal performance	U Diffusion	0.18 W/(m <sup>2</sup> K) suitable
Calculated by HFA		
Acoustic performance	R <sub>w</sub> (C;C <sub>tr</sub> ) L <sub>n,w</sub> (C <sub>I</sub> )	52(-1;-7) dB
with a tiled roof Rw = 50 ( Assessed by TGM	-1; -7) dB	
Mass per unit area	m	53.50 kg/m <sup>2</sup>
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
		concrete roof tile or tiled roof			2100		A1
	30.0	spruce wood battens (30/50)	0.120	50	450	1.600	D
	50.0	spruce wood counter battens (minimum height 50 mm)	0.120	50	450	1.600	D
		sarking membrane sd $\leq$ 0,3m			1000		E
	12.0	OSB	0.130	200	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
		vapour barrier sd≥ 11m			1000		
	15.0	OSB	0.130	200	600	1.700	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 m<sup>2</sup>)

Database ecoinvent

Calculated by HFA

OI3<sub>Kon</sub>

34.1

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## Details of sustainability rating

#### Database ecoinvent

Lifecycle	GWP	AP	EP	ODP	POCP	
(Phases)	[kg CO <sub>2</sub> -e.]	[kg SO <sub>2</sub> -e.]	[kg PO <sub>4</sub> -e.]	[kg R11-e.]	[kg Ethen-e.]	
A1 - A3		0.141	0.064	3,31E-6	0.026	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[MJ]	[LM]	[MJ]	[LM]	[MJ]	[M]
(1110303)						

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.