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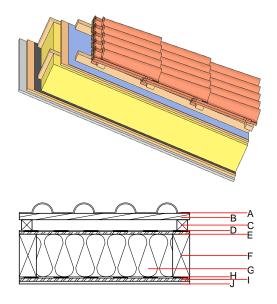
Designation: Last updated: Source: Editor: sdrhzo02a-03 8/2/23 Holzforschung Austria HFA, SP

## Pitched roof - sdrhzo02a-03

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

#### Performance rating

Fire protection performance	REI	30
maximum span = 5 m; max Classified by HFA	imum load E <sub>d,fi</sub> = 2,62 kN∕	m²
Thermal performance	U Diffusion	0.20 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>l</sub> )	51(-2;-8) dB
with a tiled roof Rw = 50 d Assessed by TGM	В	
Mass per unit area	m	47.10 kg/m <sup>2</sup>
Calculation based on gypsu	ım 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)

52.0

-	Thickness	Building material	Thermal per	formance			Reaction to fire
			λ	µ min – max	ρ	с	EN
۰		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
	200.0	construction timber (80/; e=800)	0.120	50	450	1.600	D
i	200.0	mineral wool [035; 50; <1000°C]	0.035	1	50	1.030	A1
I		vapour barrier sd≥ 11 m			1000		
	15.0	OSB	0.130	200	600	1.700	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 m<sup>2</sup>)

Database ecoinvent

Calculated by HFA

OI3<sub>Kon</sub>

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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		0.211	0.096	4,35E-6	0.033	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
Lifecycle						
(Phases)	[LM]	[LM]	[LM]	[LM]	[M]	[MJ]

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