

Designation: sdrhzo04a-00 Last updated: 8/2/23

Holzforschung Austria Source:

Editor: HFA, PLB

## Pitched roof - sdrhzo04a-00

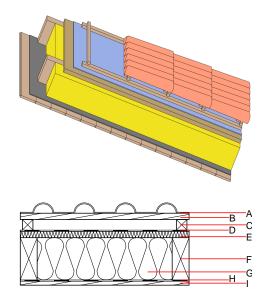
pitched roof, timber frame construction, ventilated, without dry lining, directly, wooden surface

### Performance rating

Fire protection

performance maximum span = 5 m; maximum load  $E_{d,fi}$  = 4,5 kN/m<sup>2</sup> Classified by HFA Thermal performance U  $0.17 \text{ W/(m}^2\text{K)}$ Diffusion suitable Calculated by HFA Acoustic performance  $R_w$  (C;C<sub>tr</sub>) 47(-4;-10) dB  $L_{n,w}$  ( $C_{l}$ ) Assessed by TGM Mass per unit area  $80.70 \text{ kg/m}^2$ 

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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 performance				Reaction to fire	
			λ	μ min – max	ρ	С	EN	
Α		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		sarking membrane $sd \le 0.3 m$			1000		Е	
E	35.0	softboard [045; 250] - rigid underlay	0.045	5	250	2.100	E	
F	220.0	construction timber (80/; e=800)	0.120	50	450	1.600	D	
G	220.0	mineral wool [038; ≥33; ≥1000°C]	0.038	1	33	1.030	A1	
Н		vapour barrier sd≥ 11 m			1000			
I	19.0	planking profile C	0.120	50	450	1.600		

# Sustainability rating (per m<sup>2</sup>) Database ecoinvent OI3<sub>Kon</sub> 36.8

Calculated by HFA

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.



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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		0.173	0.063	2,48E-6	0.059	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]
A1 - A3	97.281	562,371	659.652	472.509	24.418	496.927