# dataholz.eu

Designation: Last updated: Source: Editor: sdrhzi02a-03 8/2/23 Holzforschung Austria HFA, SP

## Pitched roof - sdrhzi02a-03

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

#### Performance rating

Fire protection performance	REI	30
maximum span = 5 m; ma Classified by HFA	aximum load $E_{d,fi} = 3,66$	kN/m²
Thermal performance	U Diffusion	0.19 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(-3;-9) dB
with a tiled roof Rw = 50 Assessed by TGM	dB	
Mass per unit area	m	44.50 kg∕m²
Calculation based on gyps	sum plaster board type D	)F

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
24.0	spruce wood closed cladding without spacing of cladding boards	0.120	50	450	1.600	D
200.0	construction timber (80/; e=800)	0.120	50	450	1.600	D
200.0	mineral wool [035; 50; <1000°C]	0.035	1	50	1.030	A1
	vapour barrier sd≥ 6m			1000		
24.0	spruce wood cladding with spacing of cladding boards(24/100); a=400	0.120	50	450	1.600	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

OI3<sub>Kon</sub>

Calculated by HFA

45.8

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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		0.191	0.089	3,98E-6	0.032	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[LM]	[M]	[LM]	[LM]	[MJ]	[MJ]
A1 - A3	102.563	492,568	595.132	638,785	10.862	649.647

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.