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Designation: sdrhzo03a-02
Last updated: 8/2/23
Source: Holzforschung Austria
Editor: HFA, PLB

Pitched roof - sdrhzo03a-02

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

Performance rating

Fire protection performance	**REI**	30

maximum span = 5 m; maximum load $E_{d,fi}$ = 4,5 kN/m²
Classified by HFA

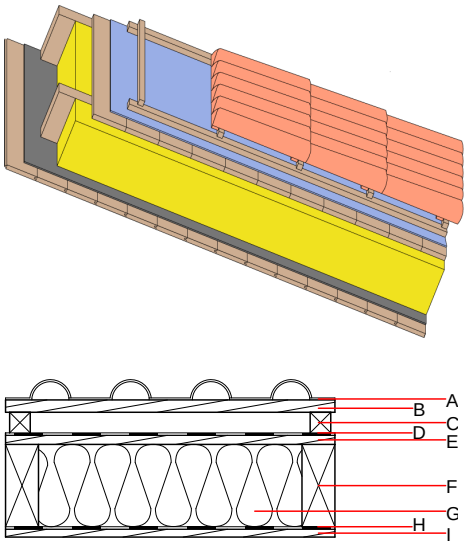
Thermal performance	**U**	0.15 W/(m²K)
	Diffusion	suitable

Calculated by HFA

Acoustic performance	**R_w ($C;C_{tr}$)**	49(-3;-10) dB
	$L_{n,w}$ (C_I)	

Assessed by TGM

Mass per unit area	**m**	86.30 kg/m²



Note: The design of the under-roof construction and of the counter-battens 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	c	EN
A		concrete roof tile or tiled roof			2100		A1
B	30.0	spruce wood battens (30/50)	0.120	50	450	1.600	D
C	50.0	spruce wood counter battens (minimum height 50 mm)	0.120	50	450	1.600	D
D		sarking membrane sd ≤ 0,3m			1000		E
E	22.0	planking spruce wood full formwork	0.120	50	450	1.600	D
F	280.0	construction timber (80/..; e=800)	0.120	50	450	1.600	D
G	280.0	mineral wool [038; ≥33; ≥1000°C]	0.038	1	33	1.030	A1
H		vapour barrier sd≥ 11m			1000		
I	19.0	planking profile C	0.120	50	450	1.600	

Sustainability rating (per m²)

Database ecoinvent

$OI3_{Kon}$	34.6

Calculated by HFA

Details of sustainability rating

Database ecoinvent

Lifecycle (Phases)	GWP [kg CO_2-e.]	AP [kg SO_2-e.]	EP [kg PO_4-e.]	ODP [kg R11-e.]	POCP [kg Ethen-e.]	
A1 - A3		0.182	0.061	2,23E-6	0.072	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	117.318	648.159	765.478	436.396	10.862	447.258