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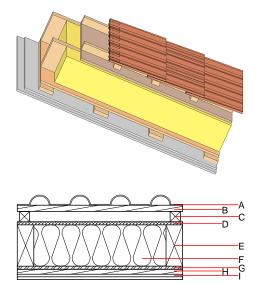
Designation: Last updated: Source: Editor: sdrhzi09b-01 8/2/23 Holzforschung Austria HFA, SP

Pitched roof - sdrhzi09b-01

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

Performance rating

Fire protection performance	REI	60						
maximum span = 5 m; max Classified by HFA	timum load $E_{d,fi} = 3,66 \text{ kN/}$	m²						
Thermal performance	U Diffusion	0.19 W∕(m ² K) suitable						
Calculated by HFA								
Acoustic performance	R _w (C;C _{tr}) L _{n,w} (C _I)	53(-1;-7) dB						
with a tiled roof Rw = 51 (-1; -7) dB Assessed by TGM								
Mass per unit area	m	55.90 kg/m ²						
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)

31.9

	Thickness	Building material	Thermal per	formance			Reaction to fire
			λ	µ min – max	ρ	с	EN
٩		concrete roof tile or tiled roof			2100		A1
3	30.0	spruce wood battens (30/50)	0.120	50	450	1.600	D
2	50.0	spruce wood counter battens (minimum height 50 mm)	0.120	50	450	1.600	D
C	15.0	fibreboard (MDF)	0.140	11	600	1.700	D
	220.0	construction timber (80/; e=800)	0.120	50	450	1.600	D
-	220.0	mineral wool [040; ≥16; <1000°C]	0.040	1	16	1.030	A1
5	15.0	OSB (sealed with airtight tape)	0.130	200	600	1.700	D
1	24.0	spruce wood cladding with spacing of cladding boards(24/100); a=400	0.120	50	450	1.600	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 m²)

Database ecoinvent

OI3_{Kon}

Calculated by HFA

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Details of sustainability rating

Database ecoinvent

Lifecycle	GWP	AP	EP	ODP	POCP	
(Phases)	[kg CO ₂ -e.]	[kg SO ₂ -e.]	[kg PO ₄ -e.]	[kg R11-e.]	[kg Ethen-e.]	
A1 - A3		0.137	0.061	3,07E-6	0.024	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[LM]	[M]	[LM]	[LM]	[MJ]	[MJ]
A1 - A3	106.089	606.061	712.150	510.293	28.891	539.184

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