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Designation: Last updated: Source: Editor: sdrhzi09a-01 8/2/23 Holzforschung Austria HFA, SP

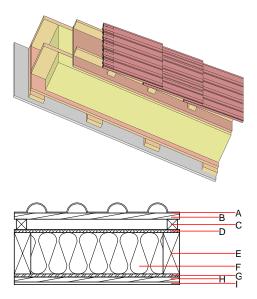
Pitched roof - sdrhzi09a-01

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 roofing, counter battens a Classified by IBS Classified by HFA		2 kN/m² (rafter 60/200 without
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 _l)	52(-1;-7) dB
with a tiled roof Rw = 50 Assessed by TGM	(-1; -7) dB	
Mass per unit area	m	45.90 kg∕m ²
Calculation based on gyps	um plaster hoard type	DE

Calculation based on gypsum 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)

1	Thickness	Building material	Thermal per	rformance			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 (Austria: minimum height 50 mm), Germany 30 mm	0.120	50	450	1.600	D
	15.0	fibreboard (MDF)	0.140	11	600	1.700	D
	220.0	construction timber (80/; e=625)	0.120	50	450	1.600	D
	220.0	mineral wool [040; ≥16; <1000°C]	0.040	1	16	1.030	A1
	15.0	OSB (sealed with airtight tape)	0.130	200	600	1.700	D
	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 m²)

Database ecoinvent

Calculated by HFA

OI3_{Kon}

29.6

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.

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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		0.131	0.059	2,80E-6	0.024	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[LM]	[MJ]	[LM]	[LM]	[M]	[M]
(1114505)					28.891	