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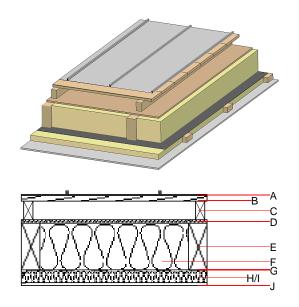
Designation: Last updated: Source: Editor: fdrhbi08a-01 8/2/23 Holzforschung Austria HFA, SP

Flat roof - fdrhbi08a-01

flat 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	ximum load E _{d,fi} = 3,66 kN/	m²
Thermal performance	U Diffusion	0.21 W∕(m ² K) suitable
Calculated by HFA		
Acoustic performance	R _w (C;C _{tr}) L _{n,w} (C _l)	47(-3;-8) dB
Assessed by TGM		
Mass per unit area	m	37.00 kg/m ²
Calculation based on GF		



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. I=without insulation

Register of building materials used for this application, cross-section (from outside to inside, dimensions in mm)

1	Thickness	Building material	Thermal performance				Reaction to fire	
			λ	µ min – max	ρ	с	EN	
		Plastic roofing membrane or					E	
		sheet metal roofing			7800		A1	
	24.0	spruce wood closed cladding without spacing of cladding boards	0.120	50	450	1.600	D	
	80.0	spruce wood counter battens (ventilation)	0.120	50	450	1.600	D	
		sarking membrane sd \leq 0,3m			1000		E	
	15.0	fibreboard (MDF)	0.140	11	600	1.700	D	
	200.0	construction timber (80/*; e=800)	0.120	50	450	1.600	D	
	200.0	mineral wool [040; ≥16; <1000 °C]	0.040	1	16	1.030	A1	
		vapour barrier sd≥ 1 m			1000			
	50.0	spruce wood cross battens (50/80;a=400)	0.120	50	450	1.600	D	
		without insulation						
	12.5	gypsum fibre board or	0.320	21	1000	1.100	A2	
	12.5	gypsum plaster board type DF	0.250	10	800	1.050	A2	

Sustainability rating (per m²)

Database ecoinvent

Calculated by HFA

OI3_{Kon}

33.7

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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		0.158	0.074	2,34E-6	0.030	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
LITECYCIE						
(Phases)	[LM]	[M]	[LM]	[LM]	[MJ]	[MJ]

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