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Designation: Last updated: Source: Editor: fdrhbi07a-03 8/2/23 Holzforschung Austria HFA, SP

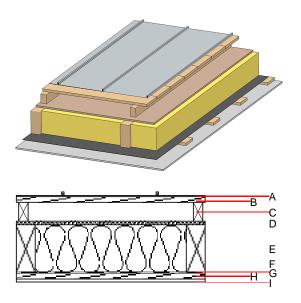
Flat roof - fdrhbi07a-03

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	0.20 W/(m ² K) suitable
Calculated by HFA		
Acoustic performance	R _w (C;C _{tr}) L _{n,w} (C _l)	49(-2;-7) dB
Assessed by TGM		
Mass per unit area	m	41.10 kg/m ²

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)

Thickne	ss Building material	Thermal per	formance			Reaction to fire
		λ	µ min – max	ρ	с	EN
	Plastic roofing membrane or					E
	sheet metal roofing			7800		A1
24	1.0 spruce wood closed cladding without spacing of cladding boards	0.120	50	450	1.600	D
80	0.0 spruce wood counter battens (ventilation)	0.120	50	450	1.600	D
	sarking membrane sd \leq 0,3m			1000		E
15	6.0 fibreboard (MDF)	0.140	11	600	1.700	D
200	0.0 construction timber (80/; e=800)	0.120	50	450	1.600	D
200	0.0 mineral wool [035; 50; <1000°C]	0.035	1	50	1.030	A1
	vapour barrier sd≥ 1 m			1000		
24	 spruce wood cladding with spacing of cladding boards(24/100); a=400 	0.120	50	450	1.600	D
12	2.5 gypsum plaster board type DF or	0.250	10	800	1.050	A2
12	2.5 gypsum fibre board	0.320	21	1000	1.100	A2

Sustainability rating (per m²)

Database ecoinvent

OI3_{Kon}

58.7

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		0.248	0.115	4,09E-6	0.039	
Lifecycle	PERE	PERM	PERT	PENRE	PENRM	PENRT
(Phases)	[MJ]	[MJ]	[MJ]	[MJ]	[MJ]	[M]

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