

Pitched roof - sdrhzi10a-01

pitched roof, timber frame construction, ventilated, with dry lining, directly, other surface

Performance rating

Fire protection performance REI 60

maximum span = 5 m; maximum load $E_{d,fi} = 1,32 \text{ kN/m}^2$
 Classified by HFA

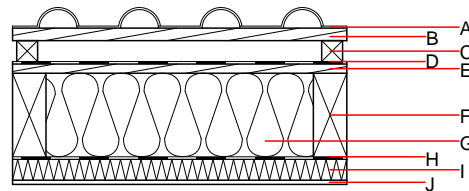
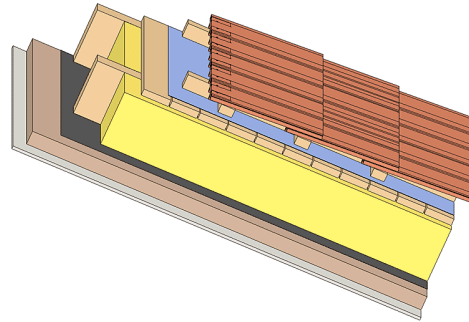
Thermal performance U 0.18 W/(m²K)
Diffusion suitable

Calculated by HFA

Acoustic performance $R_w (C; C_{tr})$ 51 (-3; 9) dB
 $L_{n,w} (C_i)$

Assessed by TGM

Mass per unit area m 107.80 kg/m²



Note: mineral wool

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 EN
			λ	μ min – max	ρ	c	
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 battens (min. 50 mm)	0.120	50	450	1.600	D
D		sarking membrane sd ≤ 0,3m			1000		E
E	24.0	planking spruce wood closed cladding without spacing of cladding boards	0.120	50	450	1.600	D
F	200.0	construction timber (80/...; e=800)	0.120	50	450	1.600	D
G	200.0	mineral wool Klemmplatte KP [038; R=30]	0.038	1	30	1.030	A1
H		vapour barrier sd ≥ 6m			1000		
I	50.0	Heraklith BM	0.090	2 - 5	370	2.000	B
J	10.0	plaster	0.700	10	1300	1.000	A1

Sustainability rating (per m²)

Database ecoinvent

013_{Kon} 28.9

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		0.136	0.048	2,40E-6	0.046	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	95.311	551.156	646.467	407.445	10.862	418.307