

## Pitched roof - sdrhzi10a-02

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

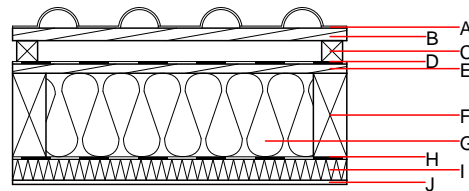
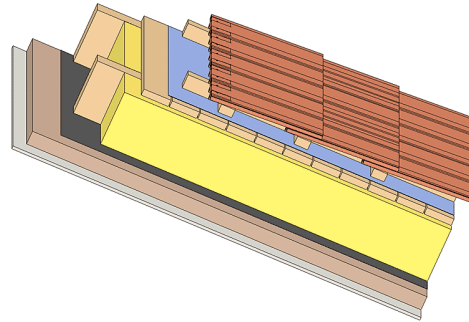
**Thermal performance** U 0.16 W/(m<sup>2</sup>K)  
**Diffusion** suitable

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 110.70 kg/m<sup>2</sup>



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
			$\lambda$	$\mu$ min – max	$\rho$	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	240.0	construction timber (80/...; e=800)	0.120	50	450	1.600	D
G	240.0	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 m<sup>2</sup>)

#### Database ecoinvent

013<sub>Kon</sub> 37.1

Calculated by HFA

## Details of sustainability rating

### Database ecoinvent

Lifecycle (Phases)	GWP [kg CO <sub>2</sub> -e.]	AP [kg SO <sub>2</sub> -e.]	EP [kg PO <sub>4</sub> -e.]	ODP [kg R11-e.]	POCP [kg Ethen-e.]	
A1 - A3		0.176	0.059	2,65E-6	0.063	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	102.785	583.912	686.697	481.376	10.862	492.239