

## Pitched roof - sdrhzo04a-02

pitched roof, timber frame construction, ventilated, without dry lining, directly, wooden surface

### Performance rating

**Fire protection performance** REI 30

maximum span = 5 m; maximum load  $E_{d,fi} = 4,5 \text{ kN/m}^2$   
 Classified by HFA

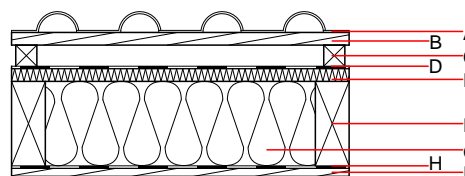
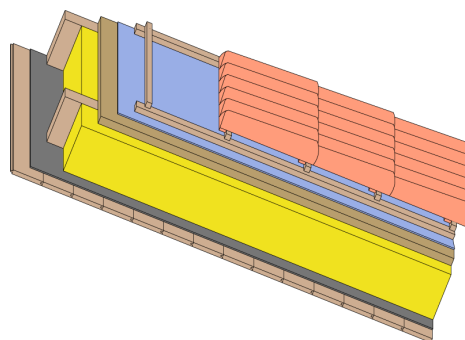
**Thermal performance** U 0.14 W/(m<sup>2</sup>K)  
 Diffusion suitable

Calculated by HFA

**Acoustic performance**  $R_w (C; C_{tr})$  49(-4;-10) dB  
 $L_{n,w} (C_i)$

Assessed by TGM

**Mass per unit area** m 85.10 kg/m<sup>2</sup>



**Note:** The design of the under-roof construction and of the counter-battens 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)

	Thickness	Building material	Thermal performance				Reaction to fire EN
			$\lambda$	$\mu \text{ min} - \text{max}$	$\rho$	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 counter battens (minimum height 50 mm)	0.120	50	450	1.600	D
D		sarking membrane $s_d \leq 0,3\text{m}$			1000		E
E	35.0	softboard [045; 250] - rigid underlay	0.045	5	250	2.100	E
F	280.0	construction timber (80/-; e=800)	0.120	50	450	1.600	D
G	280.0	mineral wool [038; $\geq 33$ ; $\geq 1000^\circ\text{C}$ ]	0.038	1	33	1.030	A1
H		vapour barrier $s_d \geq 1 \text{ m}$			1000		
I	19.0	planking profile C	0.120	50	450	1.600	

### Sustainability rating (per m<sup>2</sup>)

#### Database ecoinvent

013<sub>Kon</sub> 42.2

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		0.202	0.071	2,67E-6	0.071	
Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	106.374	611.505	717.878	525.781	24.418	550.199