

**Pitched roof - sdrhzi10a-07**

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

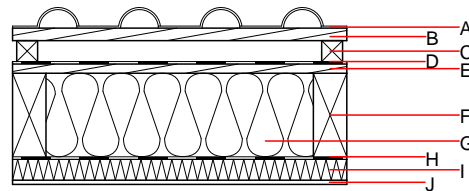
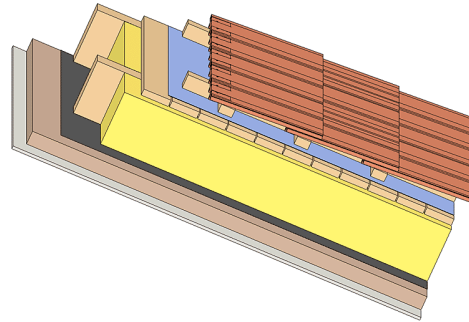
**Performance rating**

**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 0.17  $\text{W}/(\text{m}^2\text{K})$   
**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 108.70  $\text{kg}/\text{m}^2$



Note: glass wool - injected insulation

**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 $sd \leq 0,3\text{m}$			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	Supafil Timber Frame [034; R=35]	0.034	1	35	1.030	A1
H		vapour barrier $sd \geq 6\text{m}$			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  $\text{m}^2$ )

**Database ecoinvent**

$O_{13kon}$  39.7

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		0.166	0.075	3,66E-6	0.029	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	104.343	551.156	655.499	580.304	10.862	591.166