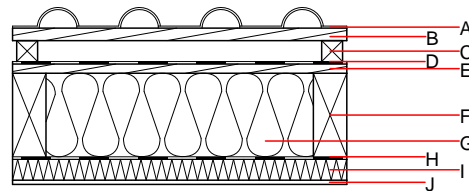
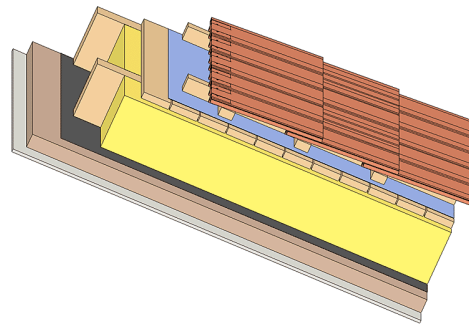


Pitched roof - sdrhzi10a-05

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 Diffusion | 0.16 $\text{W}/(\text{m}^2\text{K})$ suitable |
| Calculated by HFA | | |
| Acoustic performance | $R_w (C;C_{tr})$ $L_{n,w} (C_i)$ | 51 (-3;-9) dB |
| Assessed by TGM | | |
| Mass per unit area | m | 107.20 kg/m^2 |



Note: glass 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 $sd \leq 0,3\text{m}$ | | | | 1000 | E |
| E 24.0 | planking spruce wood closed cladding without spacing of cladding boards | 0.120 | 50 | 450 | 1.600 | D |
| F 240.0 | construction timber (80/...; e=800) | 0.120 | 50 | 450 | 1.600 | D |
| G 240.0 | glass wool UNIFIT [037; R=14] | 0.037 | 1 | 14 | 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 m^2)

Database ecoinvent

$OI3_{kon}$ 35.2

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 | | 0.151 | 0.068 | 3,40E-6 | 0.028 | |

| Lifecycle (Phases) | PERE [MJ] | PERM [MJ] | PERT [MJ] | PENRE [MJ] | PENRM [MJ] | PENRT [MJ] |
|-----------------------|--------------|--------------|--------------|---------------|---------------|---------------|
| A1 - A3 | 106.924 | 583.912 | 690.836 | 534.047 | 10.862 | 544.909 |