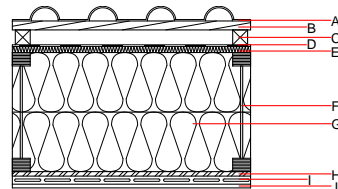
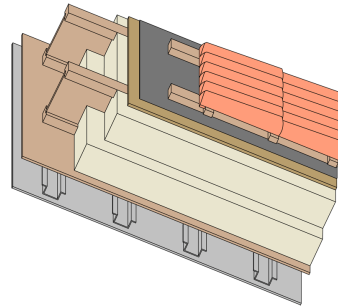


Pitched roof - sdshzi01a-02

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

Performance rating

| | | |
|---|---|---------------------------------------|
| Fire protection performance | REI | 60 |
| Classified by HFA | | |
| Thermal performance | U Diffusion | 0.09 W/(m ² K) suitable |
| Calculated by HFA | | |
| Acoustic performance | R _w (C _r ;C _{tr}) L _{n,w} (C _i) | 44 dB |
| Assessed by HFA | | |
| Mass per unit area | m | 74.10 kg/m ² |
| Calculation based on gypsum plaster board type DF | | |



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 |
|---|-----------|--|---------------------|-------------|------|-------|------------------------|
| | | | λ | μ min – max | ρ | c | |
| A | | concrete roof tile | | | 2100 | | A1 |
| B | 30.0 | spruce wood | 0.120 | 50 | 450 | 1.600 | D |
| C | 50.0 | spruce wood | 0.120 | 50 | 450 | 1.600 | D |
| D | | sarking membrane sd ≤ 0,3m | | | 1000 | | E |
| E | 20.0 | softboard [045; 250] - rigid underlay | 0.045 | 5 | 250 | 2.100 | E |
| F | 400.0 | Light composite wood-based beams (I-beams) with solid wood flanges (60/45) and hard board intermediate web (≥ 6,7) | 0.400 | 20 - 30 | 800 | 1.700 | D |
| G | 400.0 | mineral wool [034; 18; <1000°C] | 0.034 | 1 | 18 | 1.030 | A1 |
| H | 15.0 | OSB | 0.130 | 200 | 600 | 1.700 | D |
| I | 27.0 | metal rail | | | | | |
| J | 13.0 | gypsum plaster board type DF | 0.250 | 10 | 800 | 1.050 | A2 |
| J | 13.0 | gypsum fibre board | 0.320 | 21 | 1000 | 1.100 | A2 |

Sustainability rating (per m²)

Database ecoinvent

013_{Kon} 51.4

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 | | 0.197 | 0.093 | 4,16E-6 | 0.028 | |
| Lifecycle (Phases) | PERE [MJ] | PERM [MJ] | PERT [MJ] | PENRE [MJ] | PENRM [MJ] | PENRT [MJ] |
| A1 - A3 | 83.440 | 393.885 | 477.325 | 700.072 | 26.196 | 726.267 |