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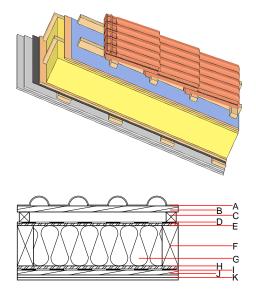
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Pitched roof - sdrhzi07b-04

pitched roof, timber frame construction, ventilated, with dry lining, not suspended, other surface

Performance rating

| Fire protection performance | REI | 60 |
|--|---|---------------------------------------|
| maximum span = 5 m; max Classified by HFA | kimum load E _{d,fi} = 3,66 kN∕ | m² |
| Thermal performance | U Diffusion | 0.21 W/(m ² K) suitable |
| Calculated by HFA | | |
| Acoustic performance | R _w (C;C _{tr}) L _{n,w} (C _I) | 53(-1;-7) dB |
| with a tiled roof Rw = 51 (Assessed by TGM | -1; -7) dB | |
| Mass per unit area | m | 57.00 kg/m ² |
| Calculation based on gypsu | um plaster board type DF | |



Note: The design of the under-roof construction and of the counterbattens 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)

| Thick | iness | Building material | Thermal per | Reaction to fire | | | |
|-------|-------|---|-------------|------------------|------|-------|----|
| | | | λ | µ min – max | ρ | с | EN |
| | | concrete roof tile or tiled roof | | | 2100 | | A1 |
| | 30.0 | spruce wood battens (30/50) | 0.120 | 50 | 450 | 1.600 | D |
| | 50.0 | spruce wood counter battens (minimum height 50 mm) | 0.120 | 50 | 450 | 1.600 | D |
| | | sarking membrane sd \leq 0,3m | | | 1000 | | E |
| | 12.0 | OSB | 0.130 | 200 | 600 | 1.700 | D |
| 2 | 200.0 | construction timber (80/; e=800) | 0.120 | 50 | 450 | 1.600 | D |
| 2 | 200.0 | mineral wool [038; ≥33; ≥1000°C] | 0.038 | 1 | 33 | 1.030 | A1 |
| | 15.0 | OSB | 0.130 | 200 | 600 | 1.700 | D |
| | | vapour barrier sd≥ 11m | | | 1000 | | |
| | 24.0 | spruce wood cladding with spacing of cladding boards(24/100); a=400 | 0.120 | 50 | 450 | 1.600 | D |
| | 25.0 | gypsum plaster board type DF (2x12,5 mm) or | 0.250 | 10 | 800 | 1.050 | A2 |
| | 25.0 | gypsum fibre board (2x12,5 mm) | 0.320 | 21 | 1000 | 1.100 | A2 |

Sustainability rating (per m²)

Database ecoinvent

OI3_{Kon}

37.9

Calculated by HFA

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Details of sustainability rating

Database ecoinvent

| Lifecycle | GWP | AP | EP | ODP | POCP | |
|-----------|--------------------------|--------------------------|--------------------------|-------------|---------------|---------|
| (Phases) | [kg CO ₂ -e.] | [kg SO ₂ -e.] | [kg PO ₄ -e.] | [kg R11-e.] | [kg Ethen-e.] | |
| A1 - A3 | | 0.169 | 0.060 | 2,81E-6 | 0.056 | |
| | | | | | | |
| Lifecycle | PERE | PERM | PERT | PENRE | PENRM | PENRT |
| (Phases) | [LM] | [M] | [LM] | [LM] | [MJ] | [LM] |
| A1 - A3 | 111.602 | 549.930 | 661.532 | 508.175 | 30.376 | 538.551 |

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