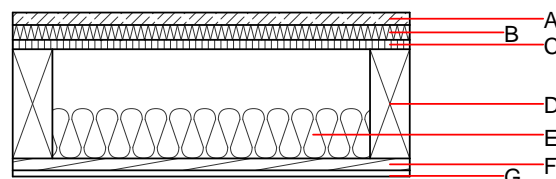
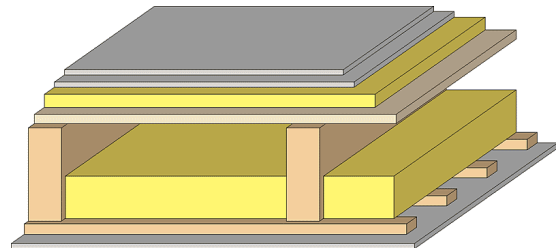


Intermediate floor - gdrtn03a-07

intermediate floor, timber frame construction, not suspended, dry, without filling, other surface

Performance rating

| | | |
|--|-------------------------------------|--|
| Fire protection performance | REI | 30 |
| maximum span = 5 m; maximum load $E_{d,fi} = 3,66 \text{ kN/m}^2$ Classified by HFA | | |
| Thermal performance | U Diffusion | 0.28 $\text{W}/(\text{m}^2\text{K})$ suitable |
| Calculated by HFA | | |
| Acoustic performance | $R_w (C;C_{tr})$ $L_{n,w} (C_i)$ | 50(-4;-11) dB 69(1) |
| Assessed by TGM | | |
| Mass per unit area | m | 62.20 kg/m^2 |
| Calculation based on GF | | |



Note: e=625;

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 | 25.0 | dry screed | 0.210 | 8 | 900 | 1.050 | A1 |
| B | 30.0 | impact sound absorbing subflooring EPS-T | 0.040 | 20 - 50 | 11 | 1.450 | E |
| C | 19.0 | particleboard | 0.130 | 50 - 100 | 700 | 1.700 | D |
| D | 220.0 | construction timber (80/...; e=*) | 0.120 | 50 | 450 | 1.600 | D |
| E | 100.0 | mineral wool [040; ≥ 16 ; $< 1000^\circ\text{C}$] | 0.040 | 1 | 16 | 1.030 | A1 |
| F | 24.0 | spruce wood cladding with spacing of cladding boards(24/100); a=400 | 0.120 | 50 | 450 | 1.600 | D |
| G | 12.5 | gypsum plaster board type DF or | 0.250 | 10 | 800 | 1.050 | A2 |
| G | 12.5 | gypsum fibre board | 0.320 | 21 | 1000 | 1.100 | A2 |

Sustainability rating (per m^2)

Database ecoinvent

$OI3_{Kon}$ 21.3

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 | | 0.086 | 0.037 | 1,84E-6 | 0.023 | |

| Lifecycle (Phases) | PERE [MJ] | PERM [MJ] | PERT [MJ] | PENRE [MJ] | PENRM [MJ] | PENRT [MJ] |
|-----------------------|--------------|--------------|--------------|---------------|---------------|---------------|
| A1 - A3 | 64.324 | 473.735 | 538.060 | 380.661 | 42.415 | 423.076 |