

Floor towards attic (uninhabitable) - ddrtxn01a-03

floor towards attic (uninhabitable), timber frame construction, not suspended, dry, 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 0.19 $\text{W}/(\text{m}^2\text{K})$
 suitable

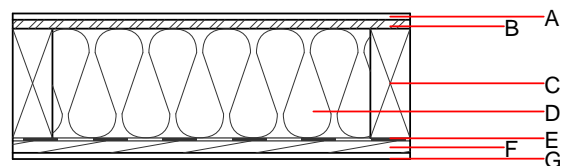
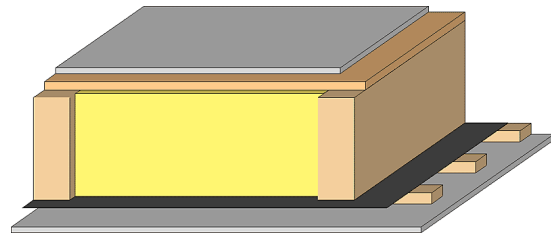
Calculated by HFA

Acoustic performance $R_w (C;C_{tr})$ 47(-3;-8) dB
 $L_{n,w} (C_i)$

Assessed by TGM

Mass per unit area m 58.50 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 | 12.5 | gypsum plaster board type DF or | 0.250 | 10 | 800 | 1.050 | A2 |
| A | 12.5 | gypsum fibre board | 0.320 | 21 | 1000 | 1.100 | A2 |
| B | 18.0 | OSB | 0.130 | 200 | 600 | 1.700 | D |
| C | 220.0 | spruce wood floor joists (80/*); e=* | 0.120 | 50 | 450 | 1.600 | D |
| D | 220.0 | mineral wool [035; 50; <1000°C] | 0.035 | 1 | 50 | 1.030 | A1 |
| E | | vapour barrier $s_d \geq 15\text{m}$ | | | 1000 | | |
| 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

$OI3_{Kon}$ 47.3

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 | | 0.198 | 0.089 | 3,72E-6 | 0.030 | |

| Lifecycle (Phases) | PERE [MJ] | PERM [MJ] | PERT [MJ] | PENRE [MJ] | PENRM [MJ] | PENRT [MJ] |
|-----------------------|--------------|--------------|--------------|---------------|---------------|---------------|
| A1 - A3 | 107.302 | 455.553 | 562.854 | 654.437 | 17.469 | 671.905 |