

Designation: ddrtxn02b-04
Last updated: 8/2/23

Source: Holzforschung Austria

Editor: HFA, SP

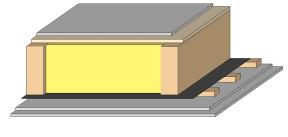
Floor towards attic (uninhabitable) - ddrtxn02b-04

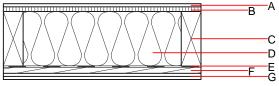
floor towards attic (uninhabitable), timber frame construction, not suspended, dry, other surface

Performance rating

Calculation based on GF

60 Fire protection performance maximum span = 5 m; maximum load $E_{d,fi}$ = 3,66 kN/m² Classified by HFA Thermal performance U $0.20 \text{ W/(m}^2\text{K)}$ Diffusion suitable Calculated by HFA Acoustic performance R_w (C;C_{tr}) 47(-3;-8) dB $L_{n,w}$ (C_{l}) Assessed by TGM Mass per unit area 67.60 kg/m^2





Note: e=625

Register of building materials used for this application, cross-section (from outside to inside, dimensions in mm)

| | Thickness | Building material | Thermal pe | rformance | | | Reaction to fire |
|---|-----------|---|------------|-------------|------|-------|------------------|
| | | | λ | μ min – max | ρ | С | EN |
| Α | 12.5 | gypsum plaster board type DF or | 0.250 | 10 | 800 | 1.050 | A2 |
| Α | 12.5 | gypsum fibre board | 0.320 | 21 | 1000 | 1.100 | A2 |
| В | 19.0 | particleboard | 0.130 | 50 - 100 | 700 | 1.700 | D |
| С | 220.0 | spruce wood floor joists (80/*); e=* | 0.120 | 50 | 450 | 1.600 | D |
| D | 220.0 | mineral wool [038; ≥33; ≥1000°C] | 0.038 | 1 | 33 | 1.030 | A1 |
| E | | vapour barrier sd≥ 8m | | | 1000 | | |
| F | 24.0 | spruce wood cladding with spacing of cladding boards(24/100); a=400 | 0.120 | 50 | 450 | 1.600 | D |
| G | 25.0 | gypsum plaster board type DF (2x12,5 mm) or | 0.250 | 10 | 800 | 1.050 | A2 |
| G | 25.0 | gypsum fibre board (2x12,5 mm) | 0.320 | 21 | 1000 | 1.100 | A2 |

Sustainability rating (per m²)

Database ecoinvent

OI3_{Kon} 33.7

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 | | 0.151 | 0.051 | 1,97E-6 | 0.056 | |
| | | | | | | |
| | | | | | | |
| Lifecycle | PERE | PERM | PERT | PENRE | PENRM | PENRT |
| Lifecycle (Phases) | PERE [MJ] | PERM [MJ] | PERT [MJ] | PENRE [MJ] | PENRM [MJ] | PENRT [MJ] |