# Intermediate floor - gdrnxa08a-06
intermediate floor, timber frame construction, suspended, wet, with filling, other surface

## Performance rating

| **Fire protection performance** | **REI** | **30** |
|---|---|---|

maximum span = 5 m; maximum load $E_{d,fi}$ = 3,66 kN/m²
Classified by HFA

| **Thermal performance** | **U** | 0.28 W/(m²K) |
|---|---|---|
| | **Diffusion** | suitable |

energy storage capacity per unit area above: 103,9 kg/m²
Calculated by HFA

| **Acoustic performance** | $R_w$ (C;$C_{tr}$) | 70(-2;-7) dB |
|---|---|---|
| | $L_{n,w}$ ($C_I$) | 41(1) |

| **Mass per unit area** | **m** | 216.00 kg/m² |
|---|---|---|

Calculation based on gypsum plaster board type DF
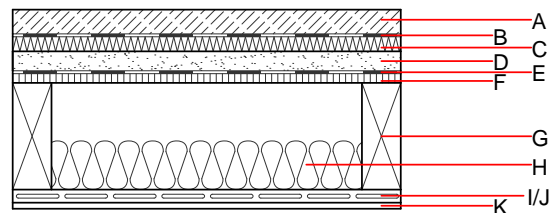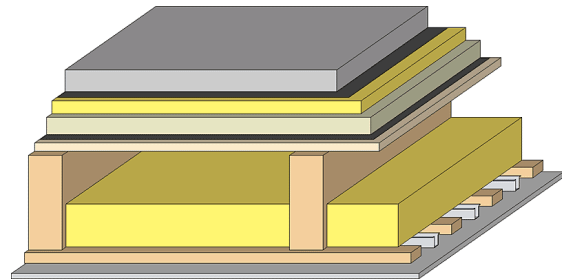
Note: e=625;

## 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 |
|---|---|---|---|---|---|---|---|
| | | | λ | μ min – max | ρ | c | EN |
| A | 50.0 | cement screed or anhydrite screed | 1.330 | 50 - 100 | 2000 | 1.080 | A1 |
| B | | plastic separation layer | 0.200 | 100000 | 1400 | 1.400 | E |
| C | 30.0 | impact sound absorbing subflooring MW-T [s'=10 MN/m³] | 0.035 | 1 | 68 | 1.030 | A1 |
| D | 40.0 | fill | 0.700 | 1 | 1800 | 1.000 | A1 |
| E | | trickling protection | | | | | E |
| F | 19.0 | particleboard | 0.130 | 50 - 100 | 700 | 1.700 | D |
| G | 220.0 | construction timber (80/..; e=*) | 0.120 | 50 | 450 | 1.600 | D |
| H | 100.0 | sheep wool [0,041; R=16] | 0.041 | 1 | 16 | 1.720 | E |
| I | 24.0 | spruce wood cladding with spacing of cladding boards(24/100); a=400 | 0.120 | 50 | 450 | 1.600 | D |
| J | 27.0 | resilient channel placed between cladding with spacing | 0.156 | | | | |
| K | 12.5 | gypsum plaster board type DF or | 0.250 | 10 | 800 | 1.050 | A2 |
| K | 12.5 | gypsum fibre board | 0.320 | 21 | 1000 | 1.100 | A2 |

## Sustainability rating (per m²)

**Database ecoinvent**

| OI3$_{Kon}$ | 36.9 |
|---|---|

Calculated by HFA

# dataholz.eu

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Source: Holzforschung Austria
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Page 2

## 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 | | 0.141 | 0.069 | 2,42E-6 | 0.029 | |

| Lifecycle (Phases) | PERE [MJ] | PERM [MJ] | PERT [MJ] | PENRE [MJ] | PENRM [MJ] | PENRT [MJ] |
|---|---|---|---|---|---|---|
| A1 - A3 | 77.103 | 505.853 | 582.955 | 549.160 | 37.173 | 586.334 |

**dataholz.eu** – Catalogue of timber building materials, components and component connections reviewed to consider thermal, acoustic, fire performance requirements and ecological drivers for timber construction released by accredited testing institutes.
These datasheets will generally be accepted as proofs of compliance by building authorities.

Page 2