

### Floor towards attic (uninhabitable) - ddrtxn06b-02

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

#### Performance rating

**Fire protection performance** REI 60

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

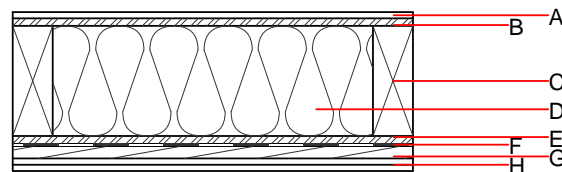
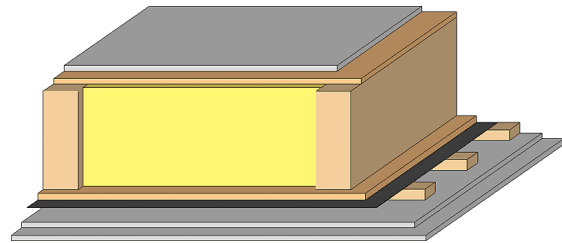
Calculated by HFA

**Acoustic performance**  $R_w (C;C_{tr})$  47(-1;-7) dB  
 $L_{n,w} (C_i)$

Assessed by TGM

**Mass per unit area** m 69.40  $\text{kg}/\text{m}^2$

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<br>EN |
|---|-----------|---|---------------------|-----------------|--------|-------|------------------------|
|   |           |   | $\lambda$           | $\mu$ min – max | $\rho$ | 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 | 15.0      | OSB   | 0.130               | 200             | 600    | 1.700 | D                      |
| C | 240.0     | spruce wood floor joists (80/*); e=*                                | 0.120               | 50              | 450    | 1.600 | D                      |
| D | 240.0     | mineral wool [040; $\geq 16$ ; $< 1000^\circ\text{C}$ ]             | 0.040               | 1               | 16     | 1.030 | A1                     |
| E | 15.0      | OSB   | 0.130               | 200             | 600    | 1.700 | D                      |
| F |           | vapour barrier $s_d \geq 7\text{m}$                                 |                     |                 | 1000   |       |                        |
| G | 24.0      | spruce wood cladding with spacing of cladding boards(24/100); a=400 | 0.120               | 50              | 450    | 1.600 | D                      |
| H | 25.0      | gypsum plaster board type DF (2x12,5 mm) or                         | 0.250               | 10              | 800    | 1.050 | A2                     |
| H | 25.0      | gypsum fibre board (2x12,5 mm)                                      | 0.320               | 21              | 1000   | 1.100 | A2                     |

#### Sustainability rating (per $\text{m}^2$ )

##### Database ecoinvent

$OI3_{kon}$  29.5

Calculated by HFA

### Details of sustainability rating

#### Database ecoinvent

| Lifecycle<br>(Phases) | GWP<br>[kg CO <sub>2</sub> -e.] | AP<br>[kg SO <sub>2</sub> -e.] | EP<br>[kg PO <sub>4</sub> -e.] | ODP<br>[kg R11-e.] | POCP<br>[kg Ethen-e.] |  |
|-----------------------|---------------------------------|--------------------------------|--------------------------------|--------------------|-----------------------|--|
| A1 - A3               |                                 | 0.132                          | 0.058                          | 2,75E-6            | 0.025                 |  |

| Lifecycle<br>(Phases) | PERE<br>[MJ] | PERM<br>[MJ] | PERT<br>[MJ] | PENRE<br>[MJ] | PENRM<br>[MJ] | PENRT<br>[MJ] |
|-----------------------|--------------|--------------|--------------|---------------|---------------|---------------|
| A1 - A3               | 123.650      | 593.728      | 717.377      | 483.668       | 26.141        | 509.809       |