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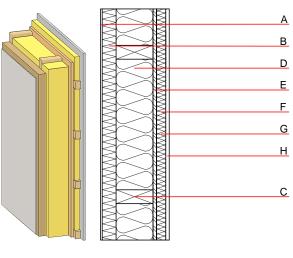
Designation: Last updated: Source: Editor: awropi04b-05 8/2/23 Holzforschung Austria HFA, SP

## External wall - awropi04b-05

external wall, timber frame construction, not ventilated, with dry lining, with rendering, other surface

#### Performance rating

| Fire protection<br>performance<br>maximum ceiling height =<br>Classified by HFA | REI from inside<br>REI from outside<br>3 m; maximum load $E_{d,fi} = 3$   | 60<br>60<br>82,0 kN∕m                 |
|---|---|---------------------------------------|
| Thermal performance   | U<br>Diffusion  | 0.13 W/(m <sup>2</sup> K)<br>suitable |
|   |   |                                       |
| Acoustic performance  | R <sub>w</sub> (C;C <sub>tr</sub> )<br>L <sub>n,w</sub> (C <sub>l</sub> ) | 53(-2;-9) dB                          |
| Vertical battens for the dry<br>Rw(C;Ctr)=51(-1;-7) dB<br>Assessed by MA39      | lining screwed onto the led   | ger beams lead to an                  |
| Mass per unit area  | m   | 66.50 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 per | rformance   |      |       | Reaction to fire |
|---|-----------|--|-------------|-------------|------|-------|------------------|
|   |           |  | λ           | µ min – max | ρ    | с     | EN               |
| 4 | 7.0       | plaster  | 1.000       | 10 - 35     | 2000 | 1.130 | A1               |
| 3 | 60.0      | wood-fibre insulation board WF-PT [045; 180]                   | 0.045       | 5 - 7       | 180  | 2.100 | E                |
| 2 | 200.0     | construction timber (60/; $e=*$ )                              | 0.120       | 50          | 450  | 1.600 | D                |
| C | 200.0     | mineral wool [040; ≥16; <1000 °C]                              | 0.040       | 1           | 16   | 1.030 | A1               |
| = | 18.0      | OSB (sealed with airtight tape)                                | 0.130       | 200         | 600  | 1.700 | D                |
| - | 80.0      | spruce wood cross battens (a=400) or battens offset)           | 0.120       | 50          | 450  | 1.600 | D                |
| Ĵ | 80.0      | mineral wool [040; $\geq$ 16; <1000°C] or air layer in type 02 | 0.040       | 1           | 16   | 1.030 | A1               |
| 4 | 15.0      | gypsum plaster board type DF or                                | 0.250       | 10          | 800  | 1.050 | A2               |
| H | 15.0      | gypsum fibre board   | 0.320       | 21          | 1000 | 1.100 | A2               |

### Sustainability rating (per m<sup>2</sup>)

#### Database ecoinvent

OI3<sub>Kon</sub>

Calculated by HFA

43.2

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#### Details of sustainability rating

#### Database ecoinvent

| Lifecycle | GWP                      | AP                       | EP                       | ODP         | POCP          |       |
|-----------|--------------------------|--------------------------|--------------------------|-------------|---------------|-------|
| (Phases)  | [kg CO <sub>2</sub> -e.] | [kg SO <sub>2</sub> -e.] | [kg PO <sub>4</sub> -e.] | [kg R11-e.] | [kg Ethen-e.] |       |
| A1 - A3   |                          | 0.186                    | 0.083                    | 3,63E-6     | 0.029         |       |
|           |                          |                          |                          |             |               |       |
| Lifecycle | PERE                     | PERM                     | PERT                     | PENRE       | PENRM         | PENRT |
| (Phases)  | [MJ]                     | [MJ]                     | [MJ]                     | [LM]        | [MJ]          | [MJ]  |
| (FildSes) |                          |                          |                          |             |               |       |

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.