# dataholz.eu

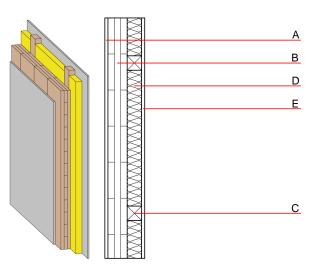
Designation: Last updated: Source: Editor: iwmxxo02a-00 8/2/23 Holzforschung Austria HFA, PLB

### Internal wall - iwmxxo02a-00

internal wall, solid wood construction, with dry lining, other surface

### Performance rating

| Fire protection performance                   | REI   | 60                                  |
|---|---|-------------------------------------|
| maximum ceiling height =<br>Classified by HFA | 3 m; maximum  | load E <sub>d,fi</sub> = 35 kN∕m    |
| Acoustic performance                          | R <sub>w</sub> (C;C <sub>tr</sub> )<br>L <sub>n,w</sub> (C <sub>l</sub> ) | 40 dB                               |
| without gypsum fibre board                    | d∕gypsum plas   | ter fire protection board (GKF/DF). |
| layer A - $R_w \ge 38$                        |   |                                     |
| Assessed by TU-GRAZ                           |   |                                     |
| Mass per unit area                            | m   |                                     |



Note: The fire resistance is only valid when wall is used as partition with only one side exposed to fire. A/E=12,5

#### 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    | с     | EN               |  |
| A | 12.5      | gypsum plaster board type DF  | 0.250               | 10          | 800  | 1.050 | A2               |  |
| A | 12.5      | gypsum fibre board  | 0.320               | 21          | 1000 | 1.100 | A2               |  |
| В | 78.0      | cross laminated timber 3- or 5-ply (e.g. thickness ≥ 78mm; 3-ply at least, surface layer at least 25mm) | 0.130               | 50          | 500  | 1.600 | D                |  |
| С | 60.0      | spruce wood battens (60/60; e=625)  | 0.120               | 50          | 450  | 1.600 | D                |  |
| D | 50.0      | mineral wool [040; 13]  | 0.040               | 1           | 13   | 1.030 | A2               |  |
| E | 12.5      | gypsum plaster board type DF or   | 0.250               | 10          | 800  | 1.050 | A2               |  |
| E | 12.5      | gypsum fibre board  | 0.320               | 21          | 1000 | 1.100 | A2               |  |

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

#### Database ecoinvent

OI3<sub>Kon</sub>

20.1

Calculated with gypsum plaster fire protection board (GKF/DF); this data includes 3-, 5-, and 7-ply cross laminated timber elements; Calculated by HFA

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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   |                          | 0.104                    | 0.044                    | 2,12E-6     | 0.031         |         |
|           |                          |                          |                          |             |               |         |
| Lifecycle | PERE                     | PERM                     | PERT                     | PENRE       | PENRM         | PENRT   |
| (Phases)  | [MJ]                     | [M]                      | [LM]                     | [LM]        | [M]           | [LM]    |
| A1 - A3   | 32.270                   | 580.689                  | 612.959                  | 374.094     | 13.401        | 387.494 |

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.