

Designation: iwrxxo01b-01 8/2/23 Last updated:

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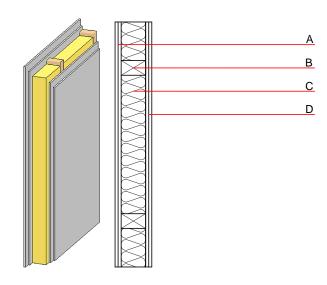
Editor: HFA, SP

# Internal wall - iwrxxo01b-01

internal wall, timber frame construction, without dry lining, other surface

#### Performance rating

Fire protection 60 performance maximum ceiling height = 3 m; maximum load  $E_{d,fi}$  = 50,0 kN/m Classified by MA39 Classified by HFA Acoustic performance  $R_w$  (C;C<sub>tr</sub>)  $L_{n,w}$  ( $C_l$ ) Mass per unit area  $49.20~\text{kg/m}^2$ Calculation based on GF



Note: The fire resistance is only valid when wall is used as partition with only one side exposed to fire. (B=60/160); 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 | 25.0      | gypsum plaster board type DF (2x12,5 mm) or | 0.250      | 10          | 800  | 1.050 | A2               |
| Α | 25.0      | gypsum fibre board (2x12,5 mm)              | 0.320      | 21          | 1000 | 1.100 | A2               |
| В | 160.0     | construction timber (60/100 or 60/160; e=*) | 0.120      | 50          | 450  | 1.600 | D                |
| С | 100.0     | mineral wool [040; ≥16; <1000°C]            | 0.040      | 1           | 16   | 1.030 | A1               |
| D | 25.0      | gypsum plaster board type DF (2x12,5 mm) or | 0.250      | 10          | 800  | 1.050 | A2               |
| D | 25.0      | gypsum fibre board (2x12,5 mm)              | 0.320      | 21          | 1000 | 1.100 | A2               |

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

Calculated by HFA

Database ecoinvent OI3<sub>Kon</sub> 16.0

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.



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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   |                          | 0.055                    | 0.026                    | 1,65E-6     | 0.009         |         |
|           |                          |                          |                          |             |               |         |
| Lifecycle | PERE                     | PERM                     | PERT                     | PENRE       | PENRM         | PENRT   |
| (Phases)  | [MJ]                     | [MJ]                     | [MJ]                     | [MJ]        | [MJ]          | [MJ]    |
| A1 - A3   | 34.046                   | 125.783                  | 159.829                  | 253.876     | 0.000         | 253.876 |