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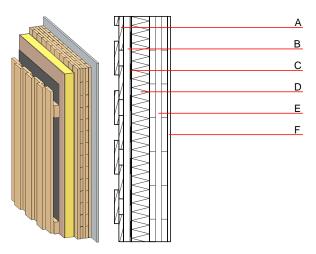
Designation: Last updated: Source: Editor: awmoho02a-00 8/2/23 Holzforschung Austria HFA, SP

External wall - awmoho02a-00

external wall, solid wood construction, not ventilated, without dry lining, with cladding, wooden surface

Performance rating

| Fire protection performance | REI from inside REI from outside | 60 30 |
|---|---|---------------------------------------|
| maximum ceiling height = Classified by HFA | 3 m; maximum load E _{d,fi} = 3 | 35,0 kN∕m |
| Thermal performance | U Diffusion | 0.51 W∕(m ² K) suitable |
| Calculated by HFA | | |
| Acoustic performance | R _w (C;C _{tr}) L _{n,w} (C _l) | 48(-2;-6) dB |
| Assessed by TU-GRAZ | | |
| Mass per unit area | m | 71.90 kg/m ² |



Note: When using cross laminated timber: Variation 00-03: d \geq 78,0; at least 3-layers, top layer at least 25mm; variation 04: d \geq 94,0; at least 3-layers, top layer at least 30mm

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 |
| A | 20.0 | larch wood external wall cladding | 0.155 | 150 | 600 | 1.600 | D |
| В | 30.0 | spruce wood battens | 0.120 | 50 | 450 | 1.600 | D |
| С | | vapour-permeable membrane $sd \le 0,3m$ | | | | | |
| D | 50.0 | multilayer wood wool composite board (WW-MW-WW) | 0.049 | 2 - 5 | 130 | 1.000 | В |
| E | 80.0 | solid glued wood (e.g. cross laminated timber) | 0.130 | 50 | 500 | 1.600 | D |
| F | 12.5 | gypsum fibre board or 12,5 mm DF | 0.320 | 21 | 1000 | 1.100 | A2 |

Sustainability rating (per m²)

Database ecoinvent

 $OI3_{Kon}$ Calculated by HFA 32.5

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Details of sustainability rating

Database ecoinvent

| Lifecycle | GWP | AP | EP | ODP | POCP | |
|-----------|--------------------------|--------------------------|--------------------------|-------------|---------------|-------|
| (Phases) | [kg CO ₂ -e.] | [kg SO ₂ -e.] | [kg PO ₄ -e.] | [kg R11-e.] | [kg Ethen-e.] | |
| A1 - A3 | | 0.173 | 0.065 | 2,37E-6 | 0.062 | |
| | | | | | | |
| Lifecycle | PERE | PERM | PERT | PENRE | PENRM | PENRT |
| (DI) | [MJ] | [MJ] | [MJ] | [LM] | [MJ] | [M] |
| (Phases) | [] | | | | | |

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.