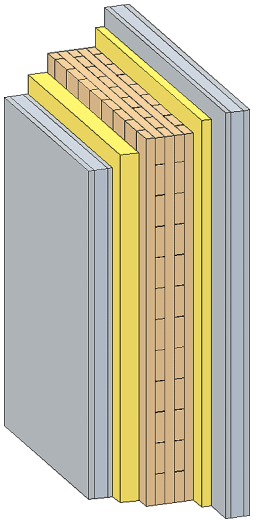
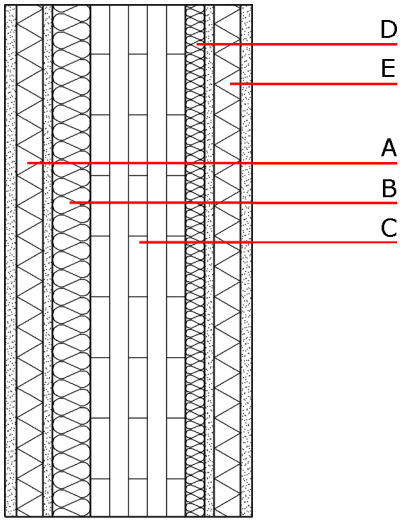
# compartment wall - solid wood construction, without dry lining






**Remark: Attention: Composite component (A + wood wool board + DF) self-supporting as wall covering.**

## Performance rating

| | | |
|---|---|---|
| **Fire protection performance** | REI | 90 |

maximum ceiling height = 3 m; maximum load $E_{d,fi}$ = 35,0 kN/m
Classified by MA39

| | | |
|---|---|---|
| **Thermal performance** | U[W/m²K] | 0,27 |
| | Diffusion adequate | adequate |
| | $m_{w,B,A}$[kg/m²] | 20,3 |

Calculated by HFA

| | | |
|---|---|---|
| **Acoustic performance** | $R_w$ (C;$C_{tr}$) | 63 (; ) |
| | $L_{n,w}$ ($C_I$) | – |

B= s'<10
Assessed by TU-GRAZ

| | | |
|---|---|---|
| **Sustainability*** | $OI3_{Kon}$ | 4,3 |

Calculated by IBO

## 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 | c | EN |
| A | 62,5 | wood wool composite boards composite member with plasterboard lining on both faces (eternal: 15 mm DF, internal: 12.5 mm A) | 0,090 | 2 - 5 | 370 | 2,000 | B |
| B | 25,0 | impact sound absorbing subflooring MW-T | 0,036 | 1 | 100 | 1,030 | A1 |
| C | 125,0 | solid wood (e.g. cross laminated timber) | 0,130 | 50 | 500 | 1,600 | D |
| D | 25,0 | impact sound absorbing subflooring MW-T | 0,036 | 1 | 100 | 1,030 | A1 |
| E | 62,5 | wood wool composite boards composite member with plasterboard lining on both faces (eternal: 15 mm DF, internal: 12.5 mm A) | 0,090 | 2 - 5 | 370 | 2,000 | B |

***Details of sustainability rating**

| GWP | AP | PEI ne | PEI e | EP | POCP |
|---|---|---|---|---|---|
| [kg $CO_2$ Äqv.] | [kg $SO_2$ Äqv.] | [MJ] | [MJ] | [kg $PO_4$ Äqv.] | [kg $C_2H_4$ Äqv.] |
| -69,7 | 0,197 | 779,2 | 1.485,7 | 0,029 | 0,012 |

**Mass per unit area**

| m | calculation based on |
|---|---|
| [kg/m²] | |
| 133,70 | gypsum plasterboard (DF) |