

Internal wall - iwrxxo03b-07

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

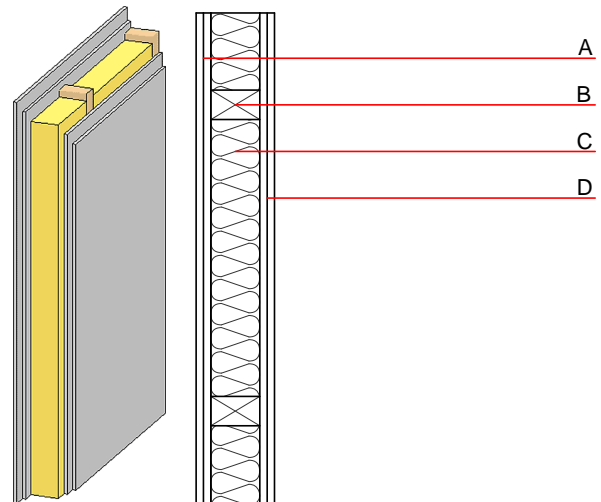
Performance rating

Fire protection performance REI 90
 maximum ceiling height = 3 m; maximum load $E_{d,fi} = 19,0 \text{ kN/m}$
 Classified by HFA

Acoustic performance $R_w (C; C_{tr})$
 $L_{n,w} (C_i)$

Mass per unit area m 73.40 kg/m²

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=400

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 EN |
|---|-----------|---|---------------------|--------------------------------|--------|-------|------------------------|
| | | | λ | $\mu \text{ min} - \text{max}$ | ρ | c | |
| A | 30.0 | gypsum plaster boards type DF (2x15 mm) or | 0.250 | 10 | 800 | 1.050 | A2 |
| A | 30.0 | gypsum fibre board (2x15 mm) | 0.320 | 21 | 1000 | 1.100 | A2 |
| B | 160.0 | construction timber (60/100 or 60/160; e=*) | 0.120 | 50 | 450 | 1.600 | D |
| C | 100.0 | mineral wool [040; ≥ 16 ; $< 1000^\circ\text{C}$] | 0.040 | 1 | 16 | 1.030 | A1 |
| D | 30.0 | gypsum plaster boards type DF (2x15 mm) or | 0.250 | 10 | 800 | 1.050 | A2 |
| D | 30.0 | gypsum fibre board (2x15 mm) | 0.320 | 21 | 1000 | 1.100 | A2 |

Sustainability rating (per m²)

Database ecoinvent

013_{Kon} 17.7

Calculated by HFA

Details of sustainability rating

Database ecoinvent

| Lifecycle (Phases) | GWP [kg CO ₂ -e.] | AP [kg SO ₂ -e.] | EP [kg PO ₄ -e.] | ODP [kg R11-e.] | POCP [kg Ethen-e.] | |
|-----------------------|---------------------------------|--------------------------------|--------------------------------|--------------------|-----------------------|---------------|
| A1 - A3 | | 0.063 | 0.030 | 1,92E-6 | 0.011 | |
| Lifecycle (Phases) | PERE [MJ] | PERM [MJ] | PERT [MJ] | PENRE [MJ] | PENRM [MJ] | PENRT [MJ] |
| A1 - A3 | 48.121 | 196.536 | 244.657 | 294.812 | 0.000 | 294.812 |