

### Internal wall - iwrxo03a-07

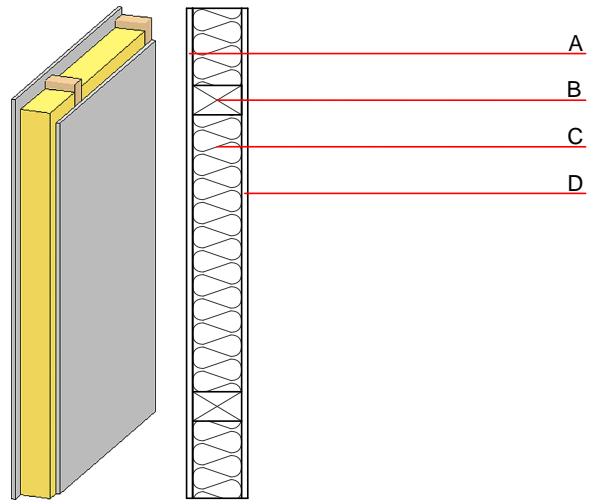
internal wall, timber frame construction, without dry lining, other surface

#### Performance rating

**Fire protection performance** REI 45  
 maximum ceiling height = 3 m; maximum load  $E_{d,fi} = 19,2 \text{ kN/m}$   
 Classified by HFA

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

**Mass per unit area** m 43.40 kg/m<sup>2</sup>  
 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
			$\lambda$	$\mu$ min – max	$\rho$	c	
A	15.0	gypsum plaster board type DF or	0.250	10	800	1.050	A2
A	15.0	gypsum fibre board	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; $\geq 16$ ; $< 1000^\circ\text{C}$ ]	0.040	1	16	1.030	A1
D	15.0	gypsum fibre board or	0.320	21	1000	1.100	A2
D	15.0	gypsum plaster board type DF	0.250	10	800	1.050	A2

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

##### Database ecoinvent

013<sub>kon</sub> 12.1

Calculated by HFA

**Details of sustainability rating**

Database ecoinvent

Lifecycle (Phases)	GWP [kg CO <sub>2</sub> -e.]	AP [kg SO <sub>2</sub> -e.]	EP [kg PO <sub>4</sub> -e.]	ODP [kg R11-e.]	POCP [kg Ethen-e.]	
A1 - A3		0.050	0.023	1,26E-6	0.010	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	43.250	196.536	239.786	202.842	0.000	202.842