

### Internal wall - iwrxo03a-05

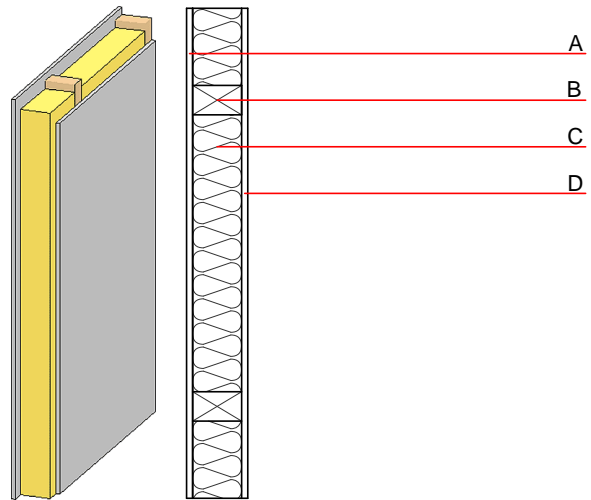
internal wall, timber frame construction, without dry lining, other surface

#### 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 35.50 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=60/100); e=625

#### 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	100.0	construction timber (60/100 or 60/160; e=*)	0.120	50	450	1.600	D
C	100.0	sheep wool [0,041; R=16]	0.041	1	16	1.720	E
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

$OI3_{Kon}$  7.8  
 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		0.025	0.012	9,51E-7	0.005	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	19.897	111.911	131.808	139.455	0.325	139.781