

### Internal wall - iwrxxi02b-02

internal wall, timber frame construction, with dry lining, other surface

#### Performance rating

**Fire protection performance** REI 90

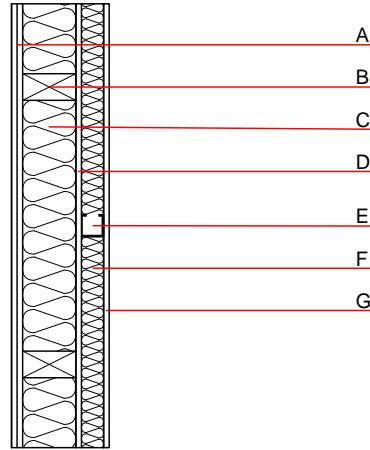
maximum ceiling height = 3 m; maximum load  $E_{d,fi} = 19\text{kN/m}$   
 Classified by HFA

**Acoustic performance**  $R_w (C; C_{tr})$  63 dB  
 $L_{n,w} (C_i)$

The acoustic insulation assessment is based on a length-related flow resistance of  $r \geq 5 \text{ kPa}\cdot\text{s}/\text{m}^2$ . If this value is lower for the insulation material used, the  $R_w$  value is reduced by 3 dB.

Assessed by TGM

**Mass per unit area** m 93.00  $\text{kg}/\text{m}^2$



**Note:** The fire resistance is only valid when wall is used as partition with only one side exposed to fire.

#### 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	30.0	Rigips Riduro 2x... mm	0.250	4 - 10	1000	1.050	A2
B	120.0	construction timber (60/...; e=625)	0.120	50	450	1.600	D
C	120.0	ISOVER Ultimate	0.035	1	20	1.030	A1
D	30.0	Rigips Riduro 2x..	0.250	4 - 10	1000	1.050	A2
E	50.0	RigiProfil >50mm; resilient channel					
F	50.0	mineral wool [040; 11; <1000°C]	0.040	1	11	1.030	A1
G	25.0	Rigips Duo Tech	0.250	4 - 10	800	1.050	A2

#### Sustainability rating (per $\text{m}^2$ )

##### Database ecoinvent

$OI3_{kon}$  32.3

Calculated by IBO

**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		0.101	0.048	3,23E-6	0.015	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	49.720	139.286	189.006	481.432	2.056	483.488