

Internal wall - iwrxxi02b-01

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

Performance rating

Fire protection performance REI 90

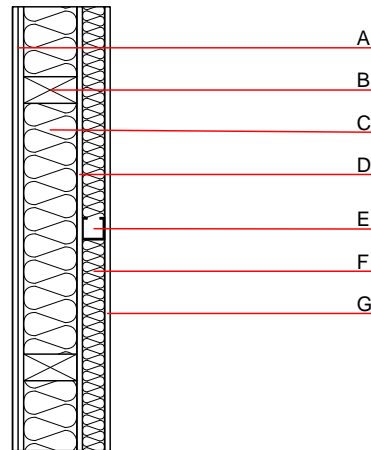
maximum ceiling height = 3 m; maximum load $E_{d,fi} = 19 \text{ kN/m}$
 Classified by HFA

Acoustic performance $R_w (C; C_{tr})$ 57 dB
 $L_{n,w} (C_i)$

The acoustic insulation assessment is based on a length-related flow resistance of $r \geq 5 \text{ kPa.s/m}^2$. 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 74.60 kg/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
			λ	μ min - max	ρ	c	
A	25.0	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 Multi-Kombi Holzrahmenfilz	0.033	1	11	1.030	A1
D	25.0	Rigips Riduro 2x..	0.250	4 - 10	1000	1.050	A2
E	50.0	RigiProfil >50mm; resilient channel					
F	50.0	mineral wool [040; 50; $\geq 1000^\circ\text{C}$]	0.040	1	50	1.030	A1
G	12.5	Rigips Riduro	0.250	4 - 10	1000	1.050	A2

Sustainability rating (per m^2)

Database ecoinvent

$O13_{kon}$ 28.1

Calculated by IBO

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		0.092	0.042	2,74E-6	0.013	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	44.665	129.712	174.377	410.001	1.019	411.020