

Internal wall - iwrxo08b-03

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

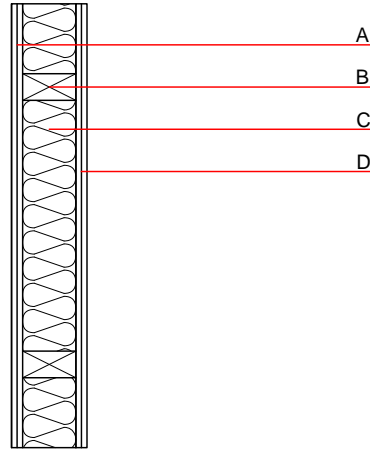
Performance rating

Fire protection performance
 REI 90
 maximum ceiling height = 3 m; maximum load $E_{d,fi} = 23,4 \text{ kN/m}$
 Classified by HFA

Acoustic performance
 $R_w (C; C_{tr})$ 43 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 3dB.
 Assessed by TGM

Mass per unit area m 61.30 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 2*12,5mm	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	Cellulose fibre [040; 50]	0.040	1	50	2.000	E
D	25.0	Rigips Riduro 2*12,5mm	0.250	4 - 10	1000	1.050	A2

Sustainability rating (per m^2)

Database ecoinvent

O_{13kon} 13.6
 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		0.047	0.020	1,70E-6	0.007	
Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	38.936	183.460	222.396	227.903	0.815	228.718