

Internal wall - iwrxo12a-02

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

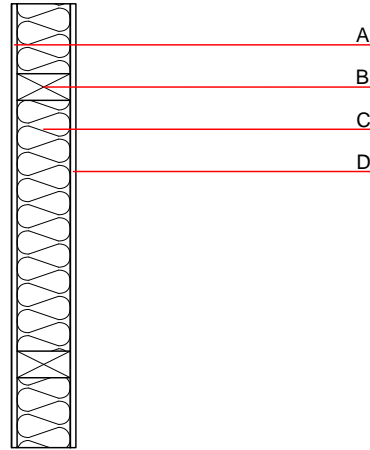
Performance rating

Fire protection performance	REI	60
maximum ceiling height = 3 m; maximum load $E_{d,fi}$ = 23,4 kN/m Classified by HFA		

Acoustic performance	R_w ($C;C_{tr}$) $L_{n,w}$ (C_i)	39 dB
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The acoustic insulation assessment is based on a length-related flow resistance of $r \geq 5$ kPa.s/m². 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	34.90 kg/m ²
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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	12.5	Rigips Riduro	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	Hemp insulation [040; 30]	0.040	1 - 2	30	2.200	E
D	12.5	Rigips Riduro	0.250	4 - 10	1000	1.050	A2

Sustainability rating (per m²)

Database ecoinvent

OI_{3kon}	9.7
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		0.035	0.017	1,14E-6	0.006	
Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	11.553	180.645	192.198	175.370	5.512	180.882