

Internal wall - iwrxxo03a-01

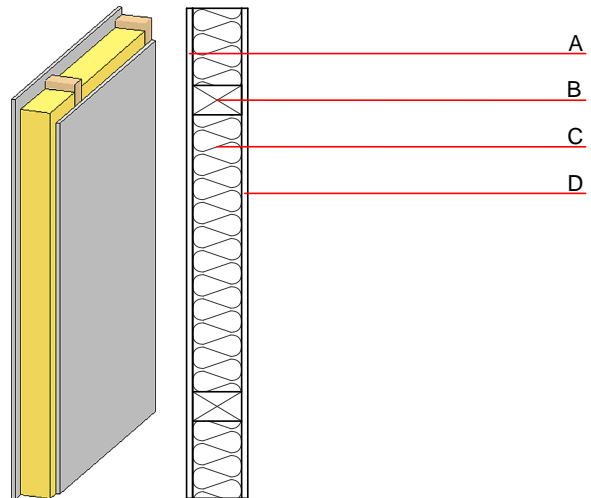
internal wall, timber frame construction, without dry lining, other surface

Performance rating

Fire protection performance REI 45
 maximum ceiling height = 3 m; maximum load $E_{d,fi}$ = 19,2 kN/m
 Classified by HFA

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

Mass per unit area m 39.20 kg/m²
 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=60/160); 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
			λ	μ min – max	ρ	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	160.0	construction timber (60/100 or 60/160; e=*)	0.120	50	450	1.600	D
C	100.0	mineral wool [040; ≥ 16 ; $< 1000^\circ\text{C}$]	0.040	1	16	1.030	A1
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 m²)

Database ecoinvent

013_{Kon} 12.3

Calculated by HFA

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		0.046	0.022	1,21E-6	0.008	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	30.798	125.783	156.581	192.562	0.000	192.562