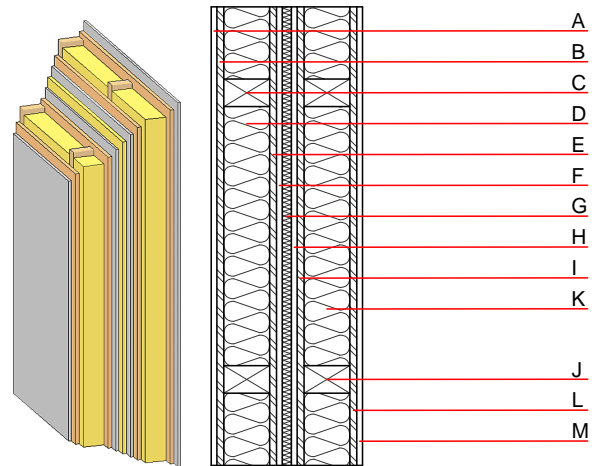


Compartment wall - twrxxo07a-04

compartment wall, timber frame construction, without dry lining, double-layer, Gipsplatte

Performance rating

Fire protection performance	REI	60
apply to each individual load-bearing wall; the whole wall: EI90; maximum ceiling height = 3 m; maximum load $E_{d,fi} = 19,2 \text{ kN/m}$ Classified by MA39 Classified by HFA		
Thermal performance	U	0.19 $\text{W}/(\text{m}^2\text{K})$
	Diffusion	suitable
Calculated by HFA		
Acoustic performance	$R_w (C; C_{tr})$	59(-3;10) dB
	$L_{n,w} (C_i)$	
Assessed by MA39		
Mass per unit area	m	91.80 kg/m^2
Calculation based on gypsum plaster board type DF		



Note: 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	$\mu \text{ min} - \text{max}$	ρ	c	
A	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2
A	12.5	gypsum fibre board	0.320	21	1000	1.100	A2
B	15.0	OSB	0.130	200	600	1.700	D
C	100.0	construction timber (60/100; e=*)	0.120	50	450	1.600	D
D	100.0	sheep wool [0,041; R=26]	0.041	1	30	1.720	E
E	15.0	OSB	0.130	200	600	1.700	D
F	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2
F	12.5	gypsum fibre board	0.320	21	1000	1.100	A2
G	20.0	mineral wool [040; ≥ 16 ; $< 1000^\circ\text{C}$]	0.040	1	16	1.030	A1
H	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2
H	12.5	gypsum fibre board	0.320	21	1000	1.100	A2
I	15.0	OSB	0.130	200	600	1.700	D
J	100.0	construction timber (60/100; e=*)	0.120	50	450	1.600	D
K	100.0	sheep wool [0,041; R=26]	0.041	1	30	1.720	E
L	15.0	OSB	0.130	200	600	1.700	D
M	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2
M	12.5	gypsum fibre board	0.320	21	1000	1.100	A2

Sustainability rating (per m^2)

Database ecoinvent

O13_{Kon} 28.6

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		0.126	0.053	3,05E-6	0.026	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	153.114	809.876	962.991	529.390	44.015	573.405