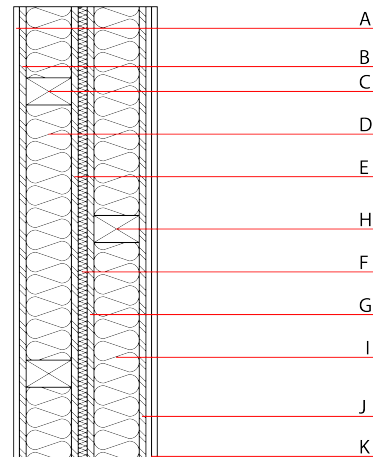


Compartment wall - twrxo01b-00

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

Performance rating

Fire protection performance	REI	60
from side A: REI 90 from side K; for the overall structure EI 90; maximum ceiling height = 3 m; maximum load $E_{d,fi} = 19,0$ kN/m Classified by HFA		
Thermal performance	U Diffusion	0.17 W/(m ² K) suitable
Calculated by HFA		
Acoustic performance	R_w (C;C _{tr}) $L_{n,w}$ (C _i)	60(-3;-10) dB
frequency range 50-3500: C ₅₀₋₃₅₀₀ -9 dB; C _{tr 50-3500} -21 dB Assessed by HFA		
Mass per unit area	m	85.10 kg/m ²



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	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=625)	0.120	50	450	1.600	D
D	100.0	mineral wool [040; 30; $\geq 1000^\circ\text{C}$]	0.040	1	30	1.030	A1
E	15.0	OSB	0.130	200	600	1.700	D
F	20.0	impact sound absorbing subflooring MW [100; s' = 14 MN/m ³]	0.035	1	100	1.030	A2
G	15.0	OSB	0.130	200	600	1.700	D
H	100.0	construction timber (60/..; e=625) staggered	0.120	50	450	1.600	D
I	100.0	mineral wool [040; 30; $\geq 1000^\circ\text{C}$]	0.040	1	30	1.030	A1
J	15.0	OSB	0.130	200	600	1.700	D
K	25.0	gypsum plaster board type DF (2x12,5) or	0.250	10	800	1.050	A2
K	25.0	gypsum fibre board (2x12,5)	0.320	21	1000	1.100	A2

Sustainability rating (per m²)

Database ecoinvent

$O13_{kon}$ 41.1

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		0.197	0.068	2,88E-6	0.062	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	163.741	792.122	955.863	592.864	46.978	639.842