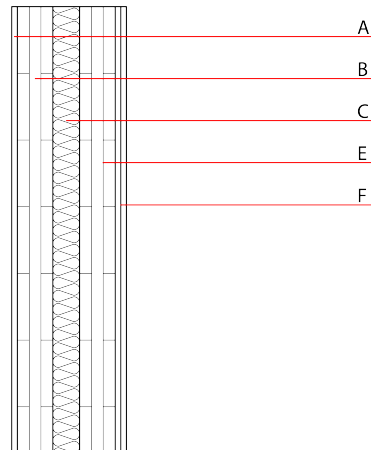


Compartment wall - twmxxo07b-00

compartment wall, solid wood construction, without dry lining, double-layer, other surface

Performance rating

Fire protection performance	REI	60
applies for each of the load-bearing walls; for the overall structure EI 90; maximum ceiling height = 3 m; maximum load $E_{d,fi} = 35,0$ kN/m Classified by HFA		
Thermal performance	U Diffusion	0.29 W/(m ² K) suitable
Calculated by HFA		
Acoustic performance	R _w (C;C _{tr}) L _{n,w} (C _i)	59(-3;-9) dB
frequency range 50-3500: C ₅₀₋₃₅₀₀ -5 dB; C _{tr 50-3500} -14 dB Assessed by HFA		
Mass per unit area	m	107.20 kg/m ²



Note: Cross laminated timber
 Var. 00-01: thickness ≥ 78mm; 3-ply at least, surface layer at least 25mm
 Var. 02: thickness ≥ 94,0mm; 3-ply at least, surface layer at least 30mm

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	0.250	10	800	1.050	A2
A	12.5	gypsum fibre board	0.320	21	1000	1.100	A2
B	80.0	cross laminated timber 3-ply	0.130	50	500	1.600	D
C	60.0	mineral wool [0,35; ≥20; <1000°C]	0.035	1	20	1.030	A1
E	80.0	cross laminated timber 3-ply	0.130	50	500	1.600	D
F	25.0	gypsum plaster board type DF (2x12,5) or	0.250	10	800	1.050	A2
F	25.0	gypsum fibre board (2x12,5)	0.320	21	1000	1.100	A2

Sustainability rating (per m²)

Database ecoinvent

013_{kon} 36.3

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		0.191	0.081	3,79E-6	0.060	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	47.977	1094.400	1142.377	680.325	27.489	707.814