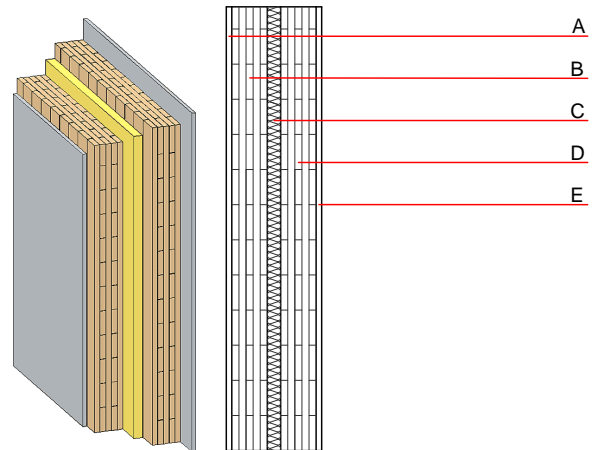


Compartment wall - twmxxo03a-00

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

Performance rating

Fire protection performance	REI	60
maximum ceiling height = 3 m; maximum load $E_{d,fi} = 35,0 \text{ kN/m}$ Classified by HFA		
Thermal performance	U Diffusion	0.38 $\text{W}/(\text{m}^2\text{K})$ suitable
Calculated by HFA		
Acoustic performance	$R_w (C;C_{tr})$ $L_{n,w} (C_i)$	56 dB
Assessed by TU-GRAZ		
Mass per unit area	m	119.50 kg/m^2
Calculation based on gypsum plaster board type DF		



Note: Cross laminated timber

Var. 00-01: thickness $\geq 78\text{mm}$; 3-ply at least, surface layer at least 25mm

Var. 02: thickness $\geq 94,0\text{mm}$; 3-ply at least, surface layer at least 30mm

A/E=12,5

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	78.0	solid glued wood (e.g. cross laminated timber)	0.130	50	500	1.600	D
C	30.0	impact sound absorbing subflooring MW-T	0.035	1	68	1.030	A1
D	78.0	solid glued wood (e.g. cross laminated timber)	0.130	50	500	1.600	D
E	12.5	gypsum plaster board type DF	0.250	10	800	1.050	A2
E	12.5	gypsum fibre board	0.320	21	1000	1.100	A2

Sustainability rating (per m^2)

Database ecoinvent

013_{kon} 39.9

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		0.207	0.088	3,89E-6	0.061	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	48.476	1067.040	1115.516	705.523	26.802	732.325