Compartment wall - twmxxo03a-01
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 kN/m
Classified by HFA

Thermal performance	U	0.29 W/(m²K)
	Diffusion	suitable

Calculated by HFA

Acoustic performance	R_w (C;C_{tr})	60 dB
	$L_{n,w}$ (C_I)	

Assessed by TU-GRAZ

Mass per unit area	m	121.60 kg/m²

Calculation based on gypsum plaster board type DF
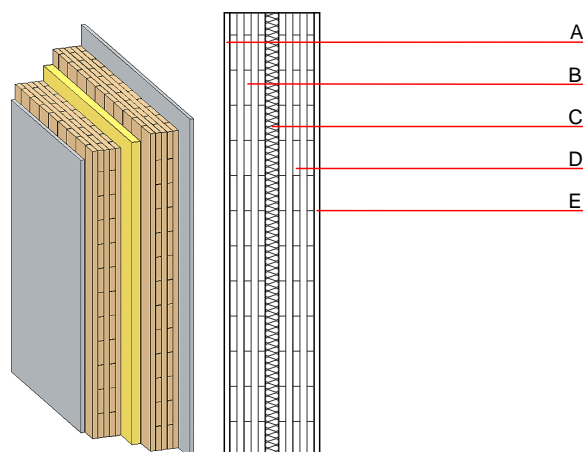
Note: Cross laminated timer
Var. 00-01: thickness ≥ 78mm; 3-ply at least, surface layer at least 25mm
Var. 02: thickness ≥ 94,0mm; 3-ply at least, surface layer at least 30mm
C=2x30 mm, A/E=12,5

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
			λ	μ min – max	ρ	c	EN
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	60.0	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 m²)

Database ecoinvent

OI3$_{Kon}$	49.3

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		0.243	0.105	4,51E-6	0.065	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	53.531	1067.040	1120.571	815.280	26.802	842.082

dataholz.eu – Catalogue of timber building materials, components and component connections reviewed to consider thermal, acoustic, fire performance requirements and ecological drivers for timber construction released by accredited testing institutes.
These datasheets will generally be accepted as proofs of compliance by building authorities.

Page 2