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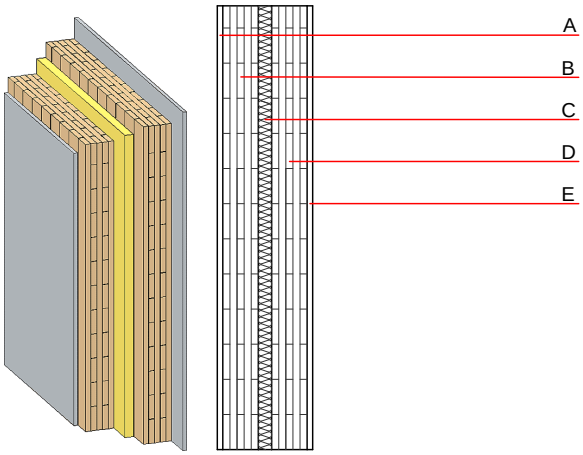
Designation: twmxxo03a-02
Last updated: 8/2/23
Source: Holzforschung Austria
Editor: HFA, SP

Compartment wall - twmxxo03a-02

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**	0.39 W/(m²K)
	Diffusion	suitable
Calculated by HFA		
Acoustic performance	**R_w ($C;C_{tr}$)**	48 dB
	$L_{n,w}$ (C_I)	
Assessed by TU-GRAZ		
Mass per unit area	**m**	97.00 kg/m²



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
A/E= without gypsum board lining

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		without gypsum board lining					
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B	94.0	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	94.0	solid glued wood (e.g. cross laminated timber)	0.130	50	500	1.600	D
E	0.0	without gypsum board lining					
E		without gypsum board lining					

Sustainability rating (per m²)

Database ecoinvent	
$OI3_{Kon}$	40.6
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		0.230	0.096	3,90E-6	0.071	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	52.490	1285.920	1338.410	735.369	32.300	767.668