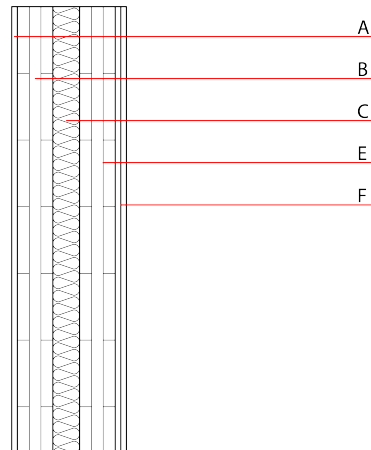


### Compartment wall - twmxxo07b-01

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

#### Performance rating

<b>Fire protection performance</b>	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		
<b>Thermal performance</b>	U Diffusion	0.28 W/(m <sup>2</sup> K) suitable
Calculated by HFA		
<b>Acoustic performance</b>	R <sub>w</sub> (C;C <sub>tr</sub> ) L <sub>n,w</sub> (C <sub>i</sub> )	64(-4;-10) dB
frequency range 50-3500: C <sub>50-3500</sub> -6 dB; C <sub>tr 50-3500</sub> -17 dB Assessed by HFA		
<b>Mass per unit area</b>	m	121.40 kg/m <sup>2</sup>



**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  
 A and F: 2x12,5mm gypsum fibre board or gypsum plaster board type DF

#### 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	25.0	gypsum plaster board type DF	0.250	10	800	1.050	A2
A	25.0	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	80.0	60 mm mineral wool [035; 90; ≥1000°C] + 20 mm air layer	0.035	1	90	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 m<sup>2</sup>)

##### Database ecoinvent

O13<sub>kon</sub> 51.3

Calculated by HFA

**Details of sustainability rating**

Database ecoinvent

Lifecycle (Phases)	GWP [kg CO <sub>2</sub> -e.]	AP [kg SO <sub>2</sub> -e.]	EP [kg PO <sub>4</sub> -e.]	ODP [kg R11-e.]	POCP [kg Ethen-e.]
A1 - A3		0.257	0.097	4,30E-6	0.090

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	53.198	1094.400	1147.598	813.777	27.489	841.266