

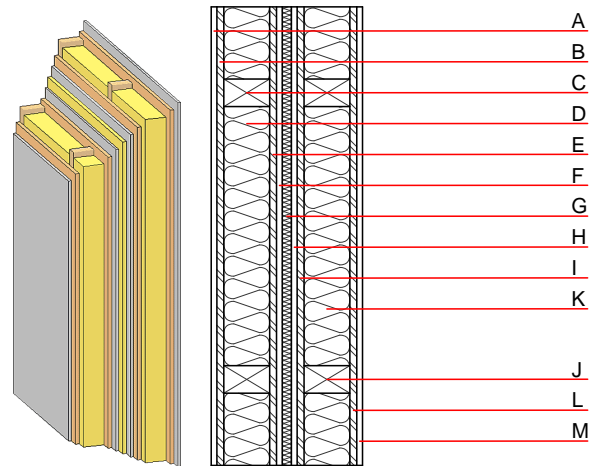
### Compartment wall - twrxo07a-04

compartment wall, timber frame construction, without dry lining, double-layer, other surface

#### Performance rating

<b>Fire protection performance</b>	REI	60
apply to each individual load-bearing wall; the whole wall: EI90; maximum ceiling height = 3 m; maximum load $E_{d,fi}$ = 19,2 kN/m		
Classified by MA39		
Classified by HFA		
<b>Thermal performance</b>	U	0.19 W/(m <sup>2</sup> K)
	Diffusion	suitable
Calculated by HFA		
<b>Acoustic performance</b>	R <sub>w</sub> (C;C <sub>tr</sub> )	59(-3;10) dB
	L <sub>n,w</sub> (C <sub>i</sub> )	
Assessed by MA39		
<b>Mass per unit area</b>	m	91.80 kg/m <sup>2</sup>

Calculation based on gypsum plaster board type DF



Note: e=625

#### 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
			$\lambda$	$\mu$ min – max	$\rho$	c	
A	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2
A	12.5	gypsum fibre board	0.320	21	1000	1.100	A2
B	15.0	OSB	0.130	200	600	1.700	D
C	100.0	construction timber (60/100; e=*)	0.120	50	450	1.600	D
D	100.0	sheep wool [0,041; R=26]	0.041	1	30	1.720	E
E	15.0	OSB	0.130	200	600	1.700	D
F	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2
F	12.5	gypsum fibre board	0.320	21	1000	1.100	A2
G	20.0	mineral wool [040; $\geq 16$ ; <1000°C]	0.040	1	16	1.030	A1
H	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2
H	12.5	gypsum fibre board	0.320	21	1000	1.100	A2
I	15.0	OSB	0.130	200	600	1.700	D
J	100.0	construction timber (60/100; e=*)	0.120	50	450	1.600	D
K	100.0	sheep wool [0,041; R=26]	0.041	1	30	1.720	E
L	15.0	OSB	0.130	200	600	1.700	D
M	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2
M	12.5	gypsum fibre board	0.320	21	1000	1.100	A2

#### Sustainability rating (per m<sup>2</sup>)

##### Database ecoinvent

013<sub>kon</sub> 28.6

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		0.126	0.053	3,05E-6	0.026	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	153.114	809.876	962.991	529.390	44.015	573.405