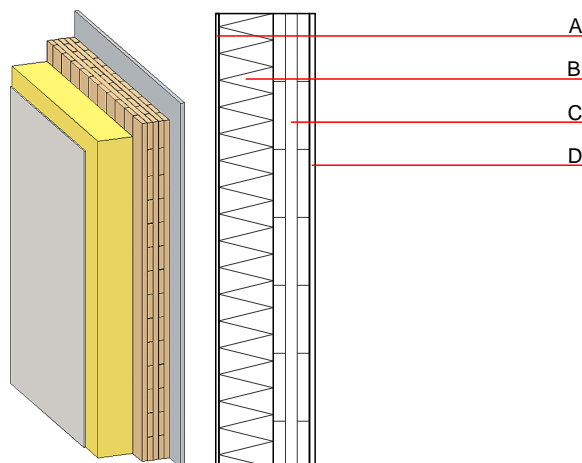


## External wall - awmopo01a-03

external wall, solid wood construction, not ventilated, without dry lining, with rendering, wooden surface

### Performance rating

<b>Fire protection performance</b>	REI from inside	60
	REI from outside	90
maximum ceiling height = 3 m; maximum load $E_{d,fi} = 35,0 \text{ kN/m}$ Classified by HFA		
<b>Thermal performance</b>	U	0.35 W/(m <sup>2</sup> K)
	Diffusion	suitable
Calculated by HFA Calculated by HFA		
<b>Acoustic performance</b>	$R_w (C; C_{tr})$	49(-3;8) dB
	$L_{n,w} (C_i)$	
Assessed by TU-GRAZ		
<b>Mass per unit area</b>	m	106.00 kg/m <sup>2</sup>



Note: Cross laminated timber:

Variation 00-03:  $d \geq 78,0$ ; at least 3-layers, top layer at least 25 mm; variation 04-07: at least 3-layers, top layer at least 30 mm

### 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	15.0	plaster	1.000	10 - 35	2000	1.130	A1
B	100.0	multilayer wood wool composite claddingboard (WW-MW-WW)	0.047	2 - 3	200	1.000	B
C	80.0	solid glued wood (e.g. cross laminated timber)	0.130	50	500	1.600	D
D	12.5	gypsum plaster board type DF / gypsum fibre board	0.250	10	800	1.050	A2

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

#### Database ecoinvent

013<sub>Kon</sub> 62.2

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		0.288	0.098	3,66E-6	0.097	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	40.010	561.164	601.174	744.432	14.544	758.976