

### External wall - awrho14a-00

external wall, timber frame construction, ventilated, without dry lining, with cladding, other surface

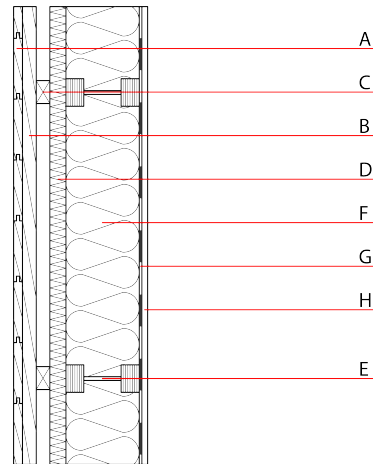
#### Performance rating

**Fire protection performance**  
 REI from inside 30  
 REI from outside 30  
 maximum ceiling height = 3 m; maximum load  $E_{d,fi} = 51 \text{ kN/m}$   
 Classified by HFA

**Thermal performance**  
 U 0.21  $\text{W}/(\text{m}^2\text{K})$   
 Diffusion suitable  
 Calculated by HFA

**Acoustic performance**  
 $R_w (C;C_{tr})$  45(-2;-8) dB  
 $L_{n,w} (C_i)$   
 Assessed by HFA

**Mass per unit area** m 45.20  $\text{kg}/\text{m}^2$   
 Calculation based on gypsum plaster board type DF



Note: According to OIB-RL 2 (Austria) is for ventilated and insulated facades (from building class 2) an insulation material with minimum Euroclass D required.

#### 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	24.0	larch wood external wall cladding (closed)	0.155	150	600	1.600	D
B	30.0	spruce wood cross battens ( $\geq 30/50$ )	0.120	50	450	1.600	D
C	30.0	spruce wood battens - ventilation ( $\geq 30/50$ )	0.120	50	450	1.600	D
D	35.0	STEICOuniversal dry [050; 210]	0.050	3	210	2.100	E
E	160.0	STEICOjoist mit Furnierschichtholzgurten (60/39) und Hartfasersteg (60/160; e=625)					
F	160.0	STEICOzell [039; 40]	0.039	1 - 3	40	2.100	E
G		STEICOMulti membra 5 sd 5m					E
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

#### Sustainability rating (per $\text{m}^2$ )

##### Database ecoinvent

O13<sub>kon</sub> 21.8

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		0.100	0.046	2,05E-6	0.020	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	118.927	613.486	732.412	386.599	45.982	432.582