

### Floor towards attic (uninhabitable) - ddmxxi02a-01

floor towards attic (uninhabitable), solid wood construction, not suspended, dry, other surface

#### Performance rating

**Fire protection performance** REI 60

maximum span = 5 m; maximum load  $E_{d,fi} = 0,6 \text{ kN/m}^2$   
 Classified by HFA

**Thermal performance** U Diffusion 0.09  $\text{W}/(\text{m}^2\text{K})$   
 suitable

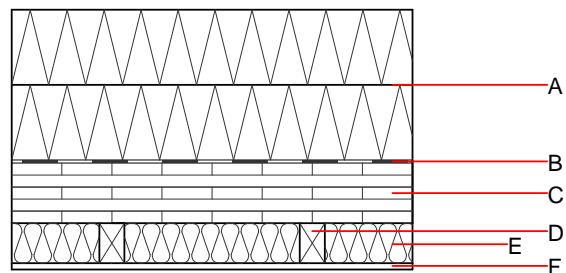
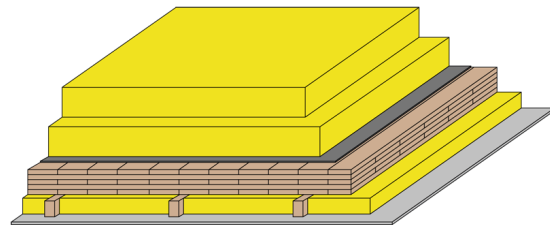
Calculated by HFA

**Acoustic performance**  $R_w (C;C_{tr})$  44 dB  
 $L_{n,w} (C_i)$

Assessed by HFA

**Mass per unit area** m 115.70  $\text{kg}/\text{m}^2$

Calculation based on 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
			$\lambda$	$\mu$ min – max	$\rho$	c	
A	300.0	mineral wool [040; 130; $\geq 1000^\circ\text{C}$ ]	0.040	1	130	1.030	A1
B		foil (air tight)					
C	125.0	cross laminated timber $\geq 125\text{mm}$ ; 5-ply at least, surface layer at least 27,5	0.130	50	500	1.600	D
D	80.0	spruce wood battens (50/80; $e=400$ )	0.120	50	450	1.600	D
E	80.0	mineral wool [040; 20]	0.040	1	20	1.030	A2
F	19.0	3-ply solid wood panel	0.110	50	400	2.500	D

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

##### Database ecoinvent

$013_{kon}$  134.7

Calculated with gypsum plaster fire protection board (GKF/DF); this data includes 3-, 5-, and 7-ply cross laminated timber elements;  
 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		0.651	0.202	6,05E-6	0.253	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	164.393	1069.914	1234.306	1440.834	40.004	1480.838