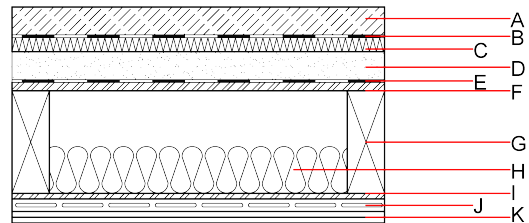


### Intermediate floor - gdrnxa03b-00

intermediate floor, timber frame construction, suspended, wet, with filling, other surface

#### Performance rating

<b>Fire protection performance</b>	REI	60
maximum span = 5 m; maximum load $E_{d,fi} = 2,62 \text{ kN/m}^2$ Classified by HFA		
<b>Thermal performance</b>	U	0.25 $\text{W}/(\text{m}^2\text{K})$
	Diffusion	suitable
Calculated by HFA		
<b>Acoustic performance</b>	$R_w (C;C_{tr})$	74(-4;-12) dB
	$L_{n,w} (C_i)$	47(0)
Assessed by HFA		
<b>Mass per unit area</b>	m	312.40 $\text{kg}/\text{m}^2$
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	60.0	cement screed or cement screed	1.330	50 - 100	2500	1.080	
B		plastic separation layer	0.200	100000	1400	1.400	E
C	30.0	impact sound absorbing subflooring MW-T [ $s' = 10 \text{ MN}/\text{m}^3$ ]	0.033	1	70	1.030	A1
D	60.0	elastic bonded (PUR) chippings, $m'$ approx. 90 $\text{kg}/\text{m}^2$	0.700	1	1500	1.000	A1
E		trickling protection					E
F	18.0	OSB	0.130	200	600	1.700	D
G	240.0	construction timber (80/...; e=*)	0.120	50	450	1.600	D
H	100.0	mineral wool [038; $\geq 30$ ; $\geq 1000^\circ\text{C}$ ]	0.038	1	30	1.030	A1
I	12.0	OSB	0.130	200	600	1.700	D
J	27.0	resilient channel					
K	25.0	gypsum plaster board type DF or	0.250	10	800	1.050	A2
K	25.0	gypsum fibre board	0.320	21	1000	1.100	A2

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

##### Database ecoinvent

$O13_{kon}$  52.8

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		0.215	0.100	3,75E-6	0.040	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	163.451	710.518	873.970	761.616	48.971	810.587