

### Intermediate floor - gdrnxa05b-01

intermediate floor, timber frame construction, suspended, wet, without filling, Gipsplatte

#### Performance rating

**Fire protection performance** REI 60

maximum span = 5 m; maximum load  $E_{d,fi} = 3,66 \text{ kN/m}^2$  (without floor construction and 12mm OSB; with ceiling beam 80/200)  
 Classified by IBS  
 Classified by HFA

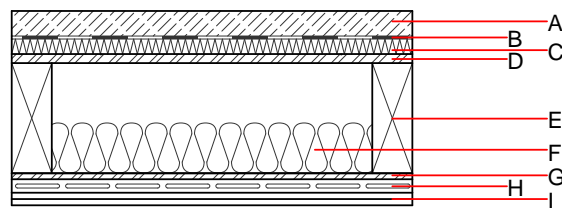
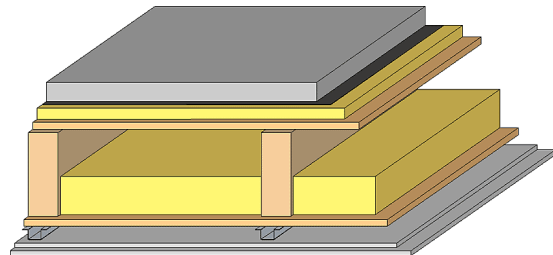
**Thermal performance** U Diffusion 0.25  $\text{W}/(\text{m}^2\text{K})$  suitable

**Acoustic performance**  $R_w (C; C_{tr})$  58(-2;-8) dB  
 $L_{n,w} (C_i)$  60(0)

Assessed by TGM

**Mass per unit area** m 169.80  $\text{kg}/\text{m}^2$

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	50.0	anhydrite screed or cement screed	0.700	10	2200	1.300	A1
B		plastic separation layer	0.200	100000	1400	1.400	E
C	30.0	impact sound absorbing subflooring MW-T	0.035	1	68	1.030	A1
D	18.0	OSB	0.130	200	600	1.700	D
E	200.0	construction timber (80/...; e=625)	0.120	50	450	1.600	D
F	100.0	mineral wool [040; $\geq 16$ ; $< 1000^\circ\text{C}$ ]	0.040	1	16	1.030	A1
G	12.0	OSB	0.130	200	600	1.700	D
H	27.0	resilient channel					
I	25.0	gypsum plaster board type DF (2x12,5 mm) or	0.250	10	800	1.050	A2
I	25.0	gypsum fibre board (2x12,5 mm)	0.320	21	1000	1.100	A2

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

##### Database ecoinvent

$013_{kon}$  43.1

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		0.170	0.081	3,10E-6	0.030	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	121.693	502.666	624.359	618.232	25.504	643.736