

## Intermediate floor - gdrnxn04b-06

intermediate floor, timber frame construction, not suspended, wet, without filling, other surface

### Performance rating

**Fire protection performance** REI 60

maximum span = 5 m; maximum load  $E_{d,fi} = 3,66 \text{ kN/m}^2$   
 Classified by HFA

**Thermal performance** U Diffusion 0.28  $\text{W}/(\text{m}^2\text{K})$   
 suitable

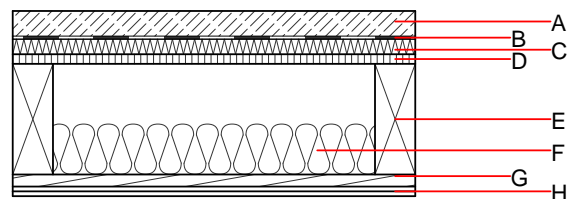
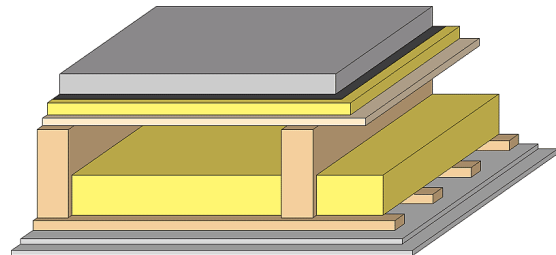
Calculated by HFA

**Acoustic performance**  $R_w (C; C_{tr})$  58(-5;-12) dB  
 $L_{n,w} (C_i)$  63(0)

Assessed by TGM

**Mass per unit area** m 154.00  $\text{kg/m}^2$

Calculation based on GF



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
			$\lambda$	$\mu \text{ min} - \text{max}$	$\rho$	c	
A	50.0	cement screed or anhydrite screed	1.330	50 - 100	2000	1.080	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	19.0	particleboard	0.130	50 - 100	700	1.700	D
E	220.0	construction timber (80/...; $e=*$ )	0.120	50	450	1.600	D
F	100.0	sheep wool [0,041; $R=16$ ]	0.041	1	16	1.720	E
G	24.0	spruce wood cladding with spacing of cladding boards(24/100); $a=400$	0.120	50	450	1.600	D
H	25.0	gypsum plaster board type DF (2x12,5 mm) or	0.250	10	800	1.050	A2
H	25.0	gypsum fibre board (2x12,5 mm)	0.320	21	1000	1.100	A2

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

#### Database ecoinvent

013<sub>Kon</sub> 34.3

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		0.128	0.063	2,49E-6	0.026	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	77.420	505.853	583.273	535.633	33.351	568.984