

## Intermediate floor - gdrtn01a-01

intermediate floor, timber frame construction, not suspended, dry, with filling, other surface

### Performance rating

**Fire protection performance** REI 30

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

**Thermal performance** U 0.26 W/(m<sup>2</sup>K)  
 Diffusion suitable

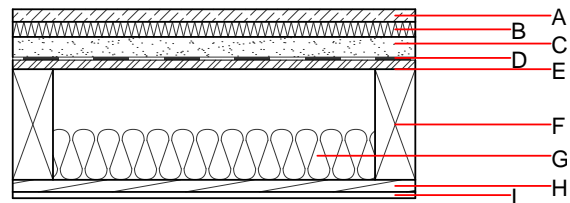
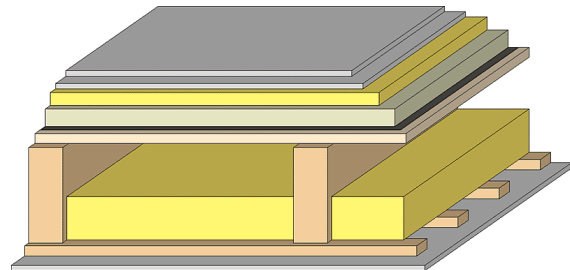
Calculated by HFA

**Acoustic performance**  $R_w (C; C_{tr})$  63(-6;-13) dB  
 $L_{n,w} (C_i)$  58(3)

Assessed by TGM

**Mass per unit area** m 133.00 kg/m<sup>2</sup>

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
			$\lambda$	$\mu$ min – max	$\rho$	c	
A	25.0	dry screed	0.210	8	900	1.050	A1
B	30.0	impact sound absorbing subflooring MW-T	0.035	1	68	1.030	A1
C	40.0	fill	0.700	1	1800	1.000	A1
D		trickling protection					E
E	18.0	OSB	0.130	200	600	1.700	D
F	200.0	construction timber (80/...; e=*)	0.120	50	450	1.600	D
G	100.0	mineral wool [040; $\geq 16$ ; $< 1000^\circ\text{C}$ ]	0.040	1	16	1.030	A1
H	24.0	spruce wood cladding with spacing of cladding boards(24/100); a=400	0.120	50	450	1.600	D
I	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2
I	12.5	gypsum fibre board	0.320	21	1000	1.100	A2

### Sustainability rating (per m<sup>2</sup>)

#### Database ecoinvent

013<sub>Kon</sub> 27.9

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		0.119	0.052	2.52E-6	0.021	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	94.164	434.589	528.753	435.017	16.832	451.848