

## Intermediate floor - gdrtn03a-03

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

### Performance rating

**Fire protection performance** REI 30

maximum span = 5 m; maximum load  $E_{d,fi}$  = 3,66 kN/m<sup>2</sup>  
 Classified by HFA

**Thermal performance** U 0.25 W/(m<sup>2</sup>K)  
 Diffusion suitable

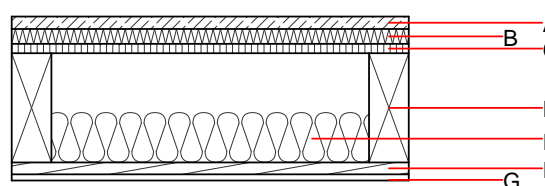
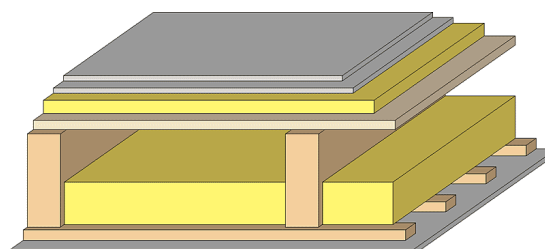
Calculated by HFA

**Acoustic performance**  $R_w$  (C;C<sub>tr</sub>) 51(-3;-10) dB  
 $L_{n,w}$  (C<sub>i</sub>) 66(1)

Assessed by TGM

**Mass per unit area** m 66.90 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	19.0	particleboard	0.130	50 - 100	700	1.700	D
D	220.0	construction timber (80/...; e=*)	0.120	50	450	1.600	D
E	100.0	mineral wool [035; 50; <1000°C]	0.035	1	50	1.030	A1
F	24.0	spruce wood cladding with spacing of cladding boards(24/100); a=400	0.120	50	450	1.600	D
G	12.5	gypsum plaster board type DF or	0.250	10	800	1.050	A2
G	12.5	gypsum fibre board	0.320	21	1000	1.100	A2

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

#### Database ecoinvent

OI3<sub>Kon</sub> 39.7

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		0.159	0.072	3,15E-6	0.028	

Lifecycle (Phases)	PERE [MJ]	PERM [MJ]	PERT [MJ]	PENRE [MJ]	PENRM [MJ]	PENRT [MJ]
A1 - A3	74.940	473.735	548.675	598.593	29.215	627.808